ENVIRONMENT AND NATURAL RESOURCES

1. OVERVIEW

MISSION

Environment and Natural Resources (ENR) works with all people and interested organizations to protect our environment by making sure our resources are used wisely and that people understand their part in keeping the environment healthy.

GOALS

1. The NWT's air, land, water, wildlife, and forests are protected.
2. The NWT's natural resources are used and developed wisely in accordance with the Sustainable Development Policy.
3. Knowledge is gained through cooperating and sharing information with other organizations and people interested in the environment.
4. The NWT's environment and natural resources are managed with the understanding that forests, wildlife, air, land and water are connected.

PROPOSED BUDGET ($000)

Total Operating Expenses	$66,187
Compensation & Benefits	$28,819
Grants & Contributions	$4,447
Other O&M	$30,930
Amortization	$1,991
Infrastructure Investment	$2,160

PROPOSED POSITIONS

Headquarters (HQ)	83 positions
Regional/Other Communities	212 positions

KEY ACTIVITIES

- Corporate Management
- Environment
- Forest Management
- Wildlife

STRATEGIC ACTIONS

The Department will take the following actions in support of the government's strategic initiatives:

Managing This Land

- Continue to Develop Governance
  - Develop and Implement a Land Use Framework
- Protect Territorial Water
  - NWT Water Stewardship Strategy Development and Implementation
  - Protect Public Water Supply: Source Watershed Modeling
  - Development of Aquatic Ecosystem Indicators
  - Participation in Management of Transboundary Waters
- Mitigate and Adapt to Climate Change Impacts
  - Climate Change Adaptation Plan
  - Delivery of Greenhouse Gas Strategy
  - Alternative Energy and Emerging Technologies
  - Energy Conservation and Efficiency
  - GNWT Energy Plan: Alternative Energy Sources
- Improve Environmental Monitoring Efforts
  - Eco-region Mapping
  - Western NWT Biophysical Study
- Environmental Stewardship
  - Stewardship (Monitoring Caribou Herds)
  - Species at Risk Act
  - Wildlife Act
  - Risk Management Strategies - Community Protection Plans
  - Waste Recovery Program
  - Traditional Knowledge Implementation Plan
  - Protected Areas – Critical Wildlife Areas

Maximizing Opportunities

- Maximize Benefits from Resource Development & Related Initiatives
  - MGP Strategic Investment – Permits and Regional Capacity

Reducing the Cost of Living

- Address Factors that Impact the Cost of Goods
  - Energy Conservation and Efficiency
  - Implementation of the GNWT Energy Plan

Refocusing Government

- Strengthen Service Delivery
  - Science Agenda Implementation

2. EMERGING ISSUES

The Northwest Territories (NWT) is facing many challenges. Resource development, climate change, economic uncertainty, new technologies, health risks and social change all require the Government of the Northwest Territories (GNWT) to adapt legislation, programs and services.

The Department of Environment and Natural Resources (ENR) has an aggressive agenda to complete during the life of the 16th Legislative Assembly. The Department is also aware of the high expectations of NWT residents to deal with the many pressing environmental issues. These include:

Getting the information necessary to wisely manage the environment

The GNWT's ability to effectively assess the impacts of development and mitigate effects that may accumulate depends on the information available. Baseline data gathered by ENR is used to compare the state of the environment before, during and after development occurs and to ensure appropriate actions are taken to prevent or mitigate changes on the environment. Baseline data informs resource management, land use planning, protected areas establishment and the environmental assessment review process. The challenge of ensuring the traditional knowledge (TK) of aboriginal peoples and communities in the NWT is considered along with western science approaches, in research and management decision making is at the fore of ENR's action plan for this coming period. ENR's TK Implementation Plan will inform all areas of ENR's practice in resource management.

The GNWT needs capacity to participate effectively in regulatory reviews and manage the impacts of increasing demands for development. A number of major projects will challenge existing resources. These include: the conclusion of the Mackenzie Gas Project review process, and environmental assessments of DeBeers' Gahcho Kue Mine, Talston Hydro expansion, Bathurst Inlet Port and Road and Giant Mine Remediation projects. Additional projects could include Canadian Zinc Corporation's plans for the Prairie Creek and North American Tungsten's Corporation's CanTung mine.

Climate Change mitigation and adaptation

Climate change remains a serious issue for the NWT. Actions are needed to help the GNWT achieve its greenhouse gas emission target for its own operations of ten percent below 2001 levels by 2011. The demand for energy management programs is increasing as the price of fuel continues to rise and NWT residents, communities and businesses try to reduce their energy costs. These programs also assist in reducing greenhouse gas emissions in the NWT. In addition to reducing emissions, there is a need to identify and co-ordinate climate change adaptation activities in the NWT. These will involve adjustments to practices and behaviour to reduce our vulnerability to climate change related impacts.

Climate change is affecting the forest landscape, health and productivity as well as its role as a wildlife habitat and sensitivity to land use impacts. ENR, as a renewable resource management authority, must gather more baseline information, monitor effects and adapt systems to be flexible and responsive. Through new forest assessments, forest use initiatives, and support services for NWT forest users, ENR must attempt to understand the role of biomass energy and deliver programs that support and provide value to NWT communities.

ENR is facing new challenges in the management of northern forest resources and forest sector transformation because of the impact of climate change. Wildland fire management challenges arise

from the uncertainties of the effects of climate change on the northern environment, although speculation is that wildland fires will be more frequent and severe.

Protecting our environment

Human activities affect the natural environment. Waste products fill landfill sites, using up valuable land and causing environmental hazards. Programs are needed to protect the environment and reduce our footprint on the environment, such as reducing the amount of waste that goes into landfills. ENR continues to deliver programs to protect our environment from human activities and develop programs to reduce our impact on the environment. Long-term plans envision expanding the program to include electronics, tires, lead acid batteries and fuel drums.

Addressing barren-caribou declines

The NWT shares responsibility for managing several wildlife populations, including a number of endangered or threatened species, with neighbouring jurisdictions. Shared populations include barren-ground, mountain and woodland caribou as well as polar bear. These species play an important role in the cultural, economic and spiritual lives of many NWT residents. Shared management agreements need to be developed to ensure human activities do not impact on the heath or productivity of these wildlife species. Co-management processes have been established to provide input into the management of various species and their habitat. Using traditional knowledge and scientific information, Aboriginal and government representatives work together to advise government on management decisions affecting these species.

Six of the eight barren-ground caribou herds are shared with other provinces and territories. Caribou numbers cycle over time and are continuing to decline. Effective management of these herds must be based on full cooperation, participation and communication between the Governments of the NWT, Nunavut, Yukon, Saskatchewan and Canada, as well as the communities located in the ranges of these herds.

Recovery actions include reductions in harvest levels as harvesting affects rate of recovery. These reductions will result in hardships to the traditional economy and commercial ventures.

Seals and Polar Bears

The July 2009 European import ban on seal products will result in economic hardships for Inuit. Although the ban allows for exemptions for seal products that are harvested by Inuit and are from sustainably managed marine resources, the Inuit harvest represents a small portion of the total seal market. This type of uninformed international pressure is also affecting economic benefits by Inuit from polar bears. The 2008 United States (US) listing of polar bears as threatened under the US *Endangered Species Act* has stopped the import of polar bear products to the US, even though the reasons for listing clearly indicate that harvest is not a threat. It is expected that a proposal may be considered at the 2010 Convention on the International Trade of Endangered Species that could potentially eliminate all trade in polar bear products. All three northern territories must work with Canada and co-management authorities to demonstrate our responsive co-management system that harvest is sustainable and trade is not a threat to polar bear numbers.

NWT Water Stewardship Strategy

Water stewardship and management actions undertaken by the GNWT continue to consider broad public interests, including community public water supply, source water protection and valued aquatic ecosystems. ENR, working with Indian and Northern Affairs Canada (INAC) and Aboriginal governments, is leading the development of a Water Stewardship Strategy that will address current and potential challenges to water resources stewardship in the NWT and strategies to address these. The document will inform future negotiations of transboundary waters management agreements.

Mackenzie River Basin Transboundary Water Management Agreements

The rapid pace of energy development, such as oil, gas and hydroelectric projects in the upstream reaches of the Mackenzie River Basin (MRB), drives a need to complete Transboundary Water Management Agreements with upstream jurisdictions as soon as possible. ENR, on behalf of the GNWT, is leading the development of a transboundary water management agreement guidance document to facilitate and improve future negotiations of transboundary agreements with upstream jurisdictions. The next transboundary agreement is scheduled to be between the NWT and Alberta.

Establishing a modern policy and legislative framework

New legislation is required to bring sustainability, impacts on forest resources, forest ecology, biodiversity, wildland fire management, and climate change directly into ENR's mandate and role. Priority will be given to reviewing and updating the Wildland Fire Management functions of the forest management program. In order to manage the impacts on NWT forests from industrial development activity, ENR is currently investigating a means to develop an appropriate forest use authorization considering the effects of industrial activity on northern forests within the Department's mandate and the GNWT's authorities. The Department is continuing its work on a forest legislative framework, required elements and policies needed to ensure management adaptation with respect to a changing climate.

ENR will lead actions to implement the newly passed *Species at Risk (NWT) Act*. Building on the successful collaboration with Aboriginal governments in developing the new *Species at Risk (NWT) Act*, work will continue on the development of a new *Wildlife Act*.

Recruitment and development of departmental human resources

As with other GNWT departments, ENR is experiencing its share of recruitment issues especially in filling Renewable Resource Officer positions. This is posing challenges to the delivery of the department's programs and services. The most significant challenge is ensuring employees have the knowledge and skills required to deliver the programs and services in a safe, effective and efficient manner. ENR has developed a training plan and implementation strategy to establish a department-wide approach to learning, development and certification of employees. The strategy will help ENR to recruit, maintain, develop and retain a diverse workforce.

ENR will continue to work collaboratively with its management partners and the public to preserve NWT waters, manage declining caribou herds, manage forest landscapes and resources, meet its consultation obligations to Aboriginal governments and organizations, legislate effectively, complete a network of protected areas, take action on climate change; implement programs to reduce waste, manage the impacts of development, increase the use of traditional knowledge, support the development of alternative energy and emerging technologies including biomass, and prepare risk management strategies.

3. 2010-11 Planning Information

The detailed description of planned activities for the department includes the following sections:

a) Fiscal Position and Budget
b) Update on Key Activities and Results Reporting
c) Update on Strategic Activities
d) Overview of Infrastructure Investments
e) Legislative Initiatives
f) Human Resource Overview
g) Information System and Management Overview

a) Fiscal Position and Budget

Departmental Summary

	Proposed Main Estimates 2010-11	Revised Estimates 2009-10	Main Estimates 2009-10	Main Estimates 2008-09
			($000)	
OPERATIONS EXPENSE				
Corporate Management	13,898	11,043	10,645	10,094
Environment	10,006	9,310	9,174	5,575
Forest Management	27,934	27,503	27,097	26,536
Wildlife	14,349	14,274	13,933	14,737
TOTAL OPERATIONS EXPENSE	66,187	62,130	60,849	56,942

Note: Revised Estimates for 2009-10 includes the 2009-10 allocation of the funding associated with the recently concluded Collective Agreement between the Government of the Northwest Territories and the Union of Northern Worker, in the amount of $1,281,000.

OPERATION EXPENSE SUMMARY

	Main Estimates 2009-10	Revised Estimates 2009-10	Proposed Adjustments: Forced Growth	Proposed Adjustments: Strategic Initiatives	Proposed Adjustments: Sunsets and Other Adjustments	Proposed Adjustments: Internal Reallocations	Proposed Budget 2010-11
				($000)			
Corporate Management							
Directorate	1,992	2,057	75	-	-	376	2,508
Field Support	536	557	23	120	-	342	1,042
Policy & Strategic Planning	2,180	2,218	35	-	(146)	(1,214)	893
Corporate Costs	3,012	3,148	179	-	-	-	3,327
Shared Services	2,767	2,873	85	236	-	-	3,194
Land & Water	-	32	23	1,363	(373)	1,731	2,776
Amortization	158	158	-	-	-	-	158
Total Activity	**10,645**	**11,043**	**420**	**1,719**	**(519)**	**1,235**	**13,898**
Environment							
Program Management	429	444	18	298	-	-	760
Environmental Protection	1,957	2,016	49		-	(145)	1,920
Energy Management	5,519	5,541	16	1,378	(335)	-	6,600
Environmental Assessment & Monitoring	1,269	1,309	25	-	(422)	(186)	726
Amortization		-	-	-	-	-	-
Total Activity	**9,174**	**9,310**	**108**	**1,676**	**(757)**	**(331)**	**10,006**
Forest Management							
Program Management & Presuppression	17,969	18,289	350	-	-	-	18,639
Suppression	4,540	4,540	-	-	-	-	4,540
Forest Resources	3,080	3,166	75	140	-	(134)	3,247
Amortization	1,508	1,508	-	-	-	-	1,508
Total Activity	**27,097**	**27,503**	**425**	**140**	**-**	**(134)**	**27,934**
Wildlife							
Wildlife	12,934	13,275	544	791	(490)	(96)	14,024
Protected Areas	674	674		-	-	(674)	-
Amortization	325	325		-	-	-	325
Total Activity	**13,933**	**14,274**	**544**	**791**	**(490)**	**(770)**	**14,349**
TOTAL DEPARTMENT	**60,849**	**62,130**	**1,497**	**4,326**	**(1,766)**	**-**	**66,187**

Note: Revised Estimates for 2009-10 includes the 2009-10 allocation of the funding associated with the recently concluded Collective Agreement between the Government of the Northwest Territories and the Union of Northern Worker, in the amount of $1,281,000.

Forced Growth under Proposed Adjustments includes funding associated with the increased cost of delivering services and also the 2010-11 allocation of the funding associated with the recently concluded Collective Agreement between the Government of the Northwest Territories and the Union of Northern Worker, in the amount of $905,000.

REVENUE SUMMARY

	Proposed Main Estimates 2010-11	Main Estimates 2009-10	Revised Estimates 2008-09	Main Estimates 2008-09
			($000)	
GRANT FROM CANADA				
TRANSFER PAYMENTS				
Type 1				
Type 2				
Type 3				
TOTAL	0	0	0	0
TAXATION REVENUE				
Type 1				
Type 2				
Type 3				
TOTAL	0	0	0	0
GENERAL REVENUES				
Timber Permits and Licenses	10	25	25	25
Hunting and Fishing Licenses	620	800	800	800
Beverage Container Program	214	570	179	179
TOTAL	844	1,395	1,004	1,004
OTHER RECOVERIES				
Mutual Aid Resources Sharing Agreement	300	300	300	300
TOTAL	300	300	300	300
GRANTS IN KIND				
Type 1				
Type 2				
TOTAL	0	0	0	0
CAPITAL				
Deferred Capital Contributions	1,044	1,043	1,043	1,043
Other				
TOTAL	1,044	1,043	1,043	1,043
REVENUES	**2,188**	**2,738**	**2,347**	**2,347**

b) Update on Key Activities and Results Report

CORPORATE MANAGEMENT

Description

The Corporate Management activity is carried out through the Directorate; Policy and Strategic Planning Division; Land and Water Unit; Corporate Shared Services Division (Finance and Administration and Informatics); and Field Support Unit.

Divisions and Units within this activity enable the Department to respond effectively to environmental and resource management issues of concern to NWT residents. This activity promotes and undertakes: strategic planning; policy development; land and water management; public education and information-sharing; traditional knowledge coordination, compliance with environmental and renewable resource law; financial management and administration services; and geographic information system (GIS) and database system development and management so timely information is available to decision-makers and the public.

Corporate Management leads GNWT efforts to manage water resources so that the waters and aquatic ecosystems of the NWT are protected. As well, Corporate Management coordinates: ENR's policy and legislative development; departmental participation in negotiation and implementation of Aboriginal lands, resources and self-government agreements; federal land and water legislation reviews; land use planning; cumulative effects assessment and management; federal-provincial-territorial initiatives; and negotiations for devolution of land and resources management with the federal government. Corporate Management also provides a secretariat function to the NWT Protected Areas Strategy (PAS) in partnership with Indian and Northern Affairs Canada and Aboriginal, environmental and industry organizations.

Major Program and Service Initiatives 2010/11

Specific Corporate Management legislation, information management, land and water resource management and Protected Areas initiatives are detailed elsewhere in this document.

- Corporate Management will review and report on ENR's implementation of the NWT Water Stewardship Strategy.
- Throughout 2010-11 Corporate Management will work with partners to implement water stewardship actions defined in a strategy finalized in early 2010.
- Corporate Management will also have a leadership role in implementing the GNWT's Land Use Framework.
- Corporate Management is planning to develop a Strategic Plan for the department linking a number of priority and strategic initiative areas of the department and the GNWT with the allocation of human and financial resources. The components of the Strategic Plan will provide medium and long-term guidance for the department in a number of key areas.

Four Year Business Plan Update

Results to Date

Policy Development

- A traditional knowledge implementation framework was developed. This initiative is detailed elsewhere in this document.

- Preliminary work is underway to develop a path forward to review and report on ENR's implementation of the Sustainable Development Policy in conjunction with the GNWT-wide development of a Land Use Framework.

Field Support Unit

- The field support unit was established for regional activities related to public education, information compliance, traditional knowledge, training, maintaining central databases on licensing and permitting and provide logistical support.

NWT Water Stewardship Strategy

- In 2008-09 the GNWT, led by ENR, worked with Indian and Northern Affairs Canada and Aboriginal governments to draft *Northern Voices: Northern Waters* a discussion paper on water management in the NWT. This discussion paper will form the basis for the development of an NWT Water Stewardship Strategy that will ensure NWT waters are protected into the future. The Strategy will serve as a basis for action to address threats to water from both within the NWT and from upstream provinces or territories, including negotiations of multi-lateral agreements with other jurisdictions. In 2009-10, widespread public input will lead to a draft Strategy that will serve broad interests and define a path forward.

- The GNWT's actions are focused on the protection of community public water supply watersheds as well as ecosystems that support fish and wildlife. This work builds on the 2008-09 community watershed mapping undertaken to enable better characterization of catchment areas and 2009-10 work to facilitate risk assessment and management, including work set out in the Canada-wide Strategy for the Management of Municipal Wastewater. Actions planned for 2009-10 help define a set of aquatic ecosystem indicators that would facilitate the ability to detect change to these ecosystems over time. Of key interest are deltas in the Mackenzie River Basin; the Peace-Athabasca Delta serves as a pilot study area. Steps to complete this work, particularly as informed by traditional and local knowledge, continue.

Annual Report on GNWT Engagement in Regional Land Use Planning

- The GNWT continues to support regional land use plans; these give an opportunity to think about what values on a landscape should be protected and where development could occur. A reasonable balance between conservation and development is promoted. Consistent with regional land use planning, the NWT Protected Areas Strategy (PAS) protects special natural and cultural areas and core representative areas within each eco-region. Additional information on the PAS can be found at www.nwtpas.ca. For areas in the Mackenzie Valley with settled claims (Gwich'in and Sahtu), the *Mackenzie Valley Resource Management Act* provides for regional land use planning.

- The GNWT continues to work with the Dehcho Land Use Planning Committee through its member to advance the Interim Dehcho Land Use Plan. GNWT objectives are to ensure that the plan can be implemented through current policy and legislation and that zones delineated in the plan allow both regional conservation and development opportunities in a balanced manner.

- In 2008-09, the GNWT nominated a new member to the Sahtu Land Use Planning Board (SLUPB) and the new member was appointed by INAC. The GNWT continues to work with the SLUPB on its third draft, ensuring that the regional land use plan takes into account the Great Bear Lake Management Plan put into place by the people of Deline.

- A 5-year review of the Gwich'in Land Use Plan, the only signed regional land use plan in the NWT, continues.

- Dialogue is occurring with Aboriginal governments and Indian and Northern Affairs Canada on an Upper Thelon Land and Resource Management Plan.

Protected Areas Strategy

- A new draft four-year action plan for NWT Protected Areas Strategy (PAS) was prepared. Sahoyue-Ehdacho became the first protected area completed under the PAS.

Changes to Four Year Plan

- Recognizing the increasing importance of environmental issues within the Northwest Territories, Canada and around the world, ENR has added a new Assistant Deputy Minister (ADM) position responsible for coordinating the department's efforts in a number of key strategic initiative areas. This position will be responsible for providing strategic advice on matters related to the NWT Water Strategy, Land Use Planning including the NWT Land Use Framework, Protected Areas Strategy, regulatory improvement initiative, devolution, energy, environmental assessment, geomatics, informatics and communications. Many of these initiatives cross over multiple departmental responsibilities and/or have territorial or national implications. Further, the ADM will be responsible for coordinating the department's overall corporate planning and management functions including the development of a Strategic Plan for the department.

- ENR created a Land and Water Unit to integrate efforts on land use planning, protected areas and water stewardship.

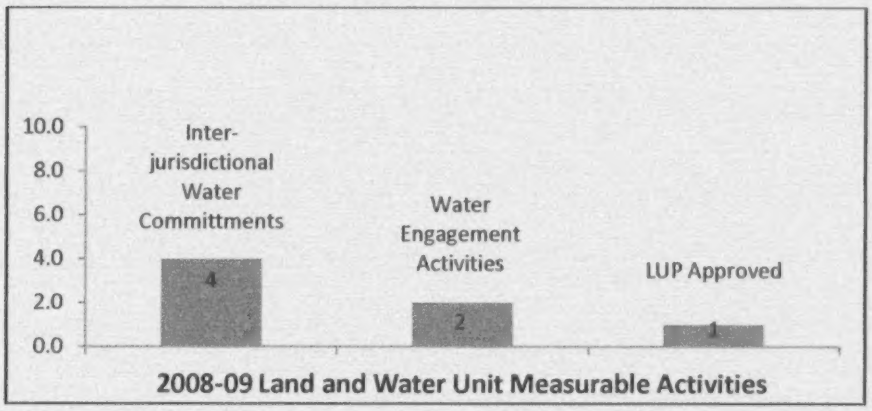
Environment & Natural Resources

Measures Reporting

1. *Number of inter-jurisdictional commitments (for example, agreements, memorandum of understandings, bilateral agreements, multilaterals or protocols) signed by NWT to manage transboundary waters.*

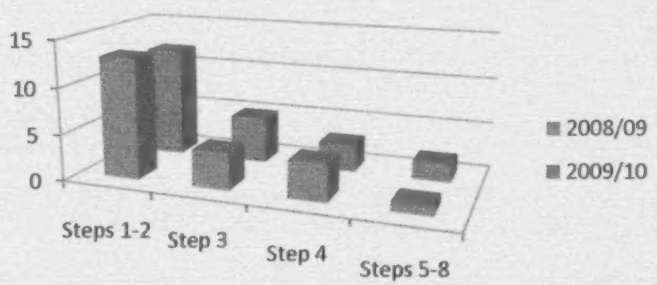
2. *Number of engagement activities undertaken within regions to promote water stewardship.*

3. *Number of land use plans successfully negotiated and submitted for approval to Executive.*



4. *Number of NWT PAS sites advance through PAS stepped process.*

Number of NWT PAS sites advanced through PAS stepped process - Status March 31, 2009 and status July 2009



Steps in the PAS process	2008-2009	July 2009
	Number of sites	Number of sites
Steps 1-2	13	12
Step 3	4	5
Step 4	4	3
Steps 5-8	1	2

5. *Number of eco-regions represented in NWT protected areas.*

Percent of eco-regions protected by existing protected areas - Status March 31, 2009 and status July 2009		
Percent of eco-regions protected	2008-2009	July 2009
	Number of eco-regions	Number of eco-regions
< 5 %	28	23
5 to 25 %	5	8
25 to 50 %	5	5
50 to 75 %	1	1
> 75 %	3	5

6. *Number of Interdepartmental meetings to enhance accountability for TK Policy Implementation within government departments.*

Eight interdepartmental meetings were held in 2008-2009.

KEY ACTIVITY 1: ENVIRONMENT

Description

The Environment Division (Environment) works with other departments, governments, industry and citizens to maintain a high quality environment for the benefit of current and future generations. The Environmental Protection section works to prevent and reduce the impact of human activities on the natural environment by providing information, advice and programs in the areas of contaminated sites, hazardous substances, solid and hazardous waste management, waste reduction and recovery, and air quality. The Climate Change Programs section coordinates the GNWT's response to climate change by developing strategies and activities to control and inventory greenhouse gas emissions, identify climate change impacts, increase awareness of climate change and adapt to a changing climate. Working in partnership with the Arctic Energy Alliance, this section encourages energy conservation and the use of energy efficient technologies and alternative energy sources. The Environmental Assessment and Monitoring section coordinates Departmental input into preliminary screenings of regulatory applications and renewal of permits and licences as well as the GNWT's participation in environmental assessments and environmental impact reviews.

Representatives from GNWT departments have formed a Green Team that will be making recommendations to the Deputy Minister's Committee on initiatives the GNWT could implement to become more energy efficient and to demonstrate leadership through environmental stewardship.

Major Program and Service Initiatives 2010/11

- The Climate Change Adaptation Plan will be implemented to address critical needs for information and coordination on climate change adaptation. The Plan will assist departments to incorporate climate change considerations into decision making and to assist non-GNWT interests to adapt to climate change impacts. Plan implementation will improve regional climate change scenarios; improve information on permafrost vulnerability in areas of critical infrastructure; and provide support to other GNWT departments, communities and regional and Aboriginal governments that are addressing adaptation problems.

- Energy efficiency and conservation programs, including support for the Arctic Energy Alliance, Energy Efficiency Incentive Program, Energy Conservation Program, Alternative Energy Technology Program, support for community energy planning and public education and awareness will be a focus for the Division.

- Environment will provide leadership in the implementation of alternative energy solutions including community wind energy and biomass energy projects. Working with communities and energy partners, the GNWT will facilitate the installation of wind turbines in Tuktoyaktuk, facilitate the installation of a biomass project and distributed energy system in a thermal community, complete community forest inventory assessments, promote use of firewood and establish infrastructure to support expanded wood pellet manufacturing and use within the NWT.

- Environment will provide leadership and coordination for GNWT preparations and participation in the Mackenzie Gas Project regulatory review process and will coordinate GNWT input to reviews of oil and gas and mineral development proposals.

- Environment will lead the implementation of the GNWT Science Agenda and thereby help ensure that research activities in the NWT are focused on issues important to the GNWT and NWT residents and will contribute to increased northern participation in research activities and through this an increased interest in education.

Four Year Business Plan Update

Results to Date

Waste Reduction and Recovery Program

- Based on the results from public consultations conducted in 2008, ENR has expanded the waste reduction and recovery program to include programs and/or initiatives targeting milk containers, paper and cardboard, and single use retail bags.

Climate Change

- ENR is working with GNWT departments to prepare a NWT Climate Change Adaptation Plan. The Plan establishes mechanisms to provide information and support to decision makers at all levels to incorporate climate change considerations into their activities.

- ENR has represented GNWT interests on the Federal/Provincial/Territorial Working Group on International Climate Change and ensured that northern interests were fully considered in the development of Canada's position and approach to the United Nations Framework Convention on Climate Change Conference of Parties meeting in Copenhagen (COP15).

Alternative Energy

- The feasibility of wind electrical generation has been evaluated in several NWT communities. Business planning and project design are underway for the Tuktoyaktuk wind energy project and four wind turbines will be installed and operational in Tuktoyaktuk by the summer of 2011.

- A Biomass Strategy has been completed and is being implemented. The Strategy will address five main areas: community fuel wood, biomass heating, electricity generation, biomass supply, and communication and public education. Two Members of Legislative Assembly and two GNWT staff travelled to Scandinavia in April/May of 2009 to learn about innovative uses of biomass energy.

Environmental Assessment

- An Environmental Assessment Tracking System has been designed and implemented to improve environmental assessment and regulatory document tracking and to streamline the collection and coordination of GNWT-wide input to review processes.

- Preparations for the December 2009 release of the Joint Review Panel report on the Mackenzie Gas Project were completed.

Changes to Four Year Plan

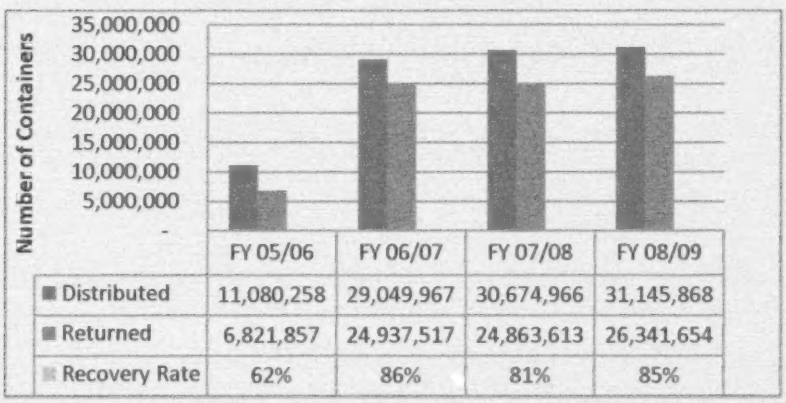
- Expertise on water issues that was added to the Division in 2008 has been moved to the new Land and Water Unit.

- The Division will take on a leadership role in implementation of the GNWT Science Agenda with the addition of a Senior Science Advisor and Research Analyst.

Measures Reporting

1. *Annual Recovery Rate of Beverage Containers*

The Beverage Container Program was implemented in November 2005. From April 1, 2008 to March 31, 2009, more than 31 million beverage containers were distributed and over 26 million containers were returned to NWT depots. The rate of recovery for the fiscal year 2008-2009 was 85 percent. Total returns, from program implementation to March 31, 2009, exceed 82 million containers.



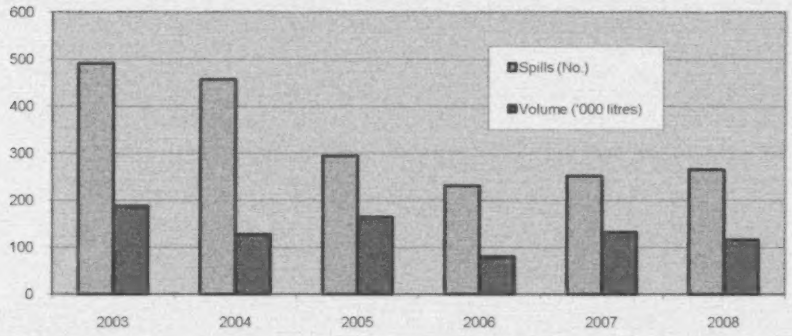
	FY 05/06	FY 06/07	FY 07/08	FY 08/09
Distributed	11,080,258	29,049,967	30,674,966	31,145,868
Returned	6,821,857	24,937,517	24,863,613	26,341,654
Recovery Rate	62%	86%	81%	85%

Note: The Beverage Container Program was implemented in November 2005, and therefore only five months of data are available for fiscal year (FY) 05/06.

2. *Number and volume of hydrocarbon spills recorded and tracked through the NWT Spill Line.*

Petroleum liquids represented the majority of spills in the NWT. There has been a general decrease in the number and volume of spills since 2003. New reporting protocols implemented for the oil and gas exploration and development sector in 2004 and 2005 are reducing the number of small spills (less than 100 litres) being reported.

Number and Volume of Hydrocarbon Spills
Northwest Territories, 2003 – 2008

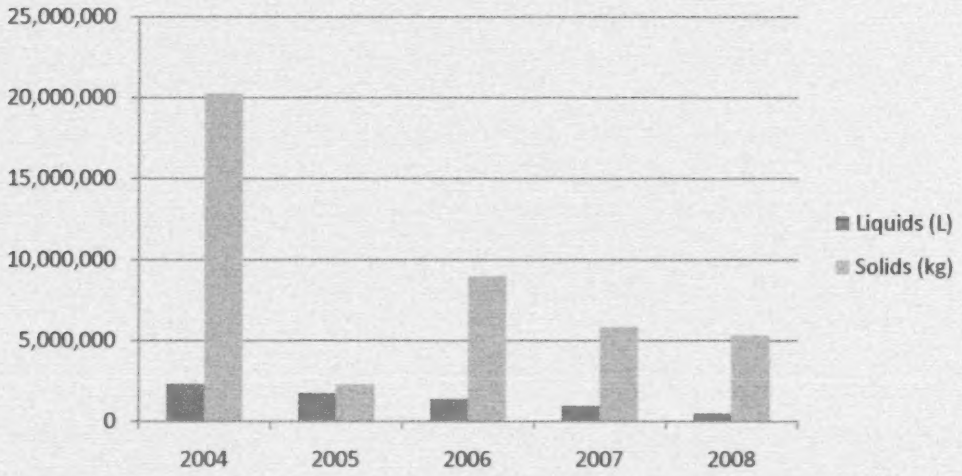


Source: NWT Spill Line database

3. *Quantity of hazardous wastes generated and transported off site.*

The information described in the tables below accounts for the amount of hazardous waste being consigned from registered generators of hazardous waste to registered receivers of hazardous waste. The receivers may be within the NWT as is the case for facilities that remediate hydrocarbon contaminated soils and waters. The large amount of solids consigned in 2004 is due to contaminated soils being generated by one company (Enbridge Pipelines). The annual amounts are consistent with the fiscal year, April 1 to March 31. The weights and volumes are estimates based on amounts reported in cubic meters but may be considered accurate for general trends.

Hazardous Waste Consignments in the NWT			
Year	Liquids (L)	Solids (kg)	Manifests recorded by ENR
2004	2,317,654	20,282,366	617
2005	1,738,964	2,264,574	534
2006	1,375,632	8,947,990	649
2007	956,791	5,821,448	565
2008	478,110	5,324,799	778



Source: ENR Hazardous Waste Transportation Tracking System

4. *Level of participation in energy conservation and alternative technology programs.*

ENR continued to deliver the Alternative Energy Technologies Program (AETP), the Energy Efficiency Incentive Program (EEIP), and the Energy Conservation Program (ECP) in 2008/2009. A total for all programs of $570,000 spent on energy projects reduced greenhouse gas emissions by 3,000 tonnes per year and provided annual savings of $615,000.

- AETP provided $132,012 to residents and communities for 14 alternative energy projects that will reduce greenhouse gas emissions by 417 tonnes a year and provide savings in energy costs of $89,878. AETP funds also contributed $15,000 for renewable energy seminars held in schools in Beaufort region communities.

- EEIP was delivered through the Arctic Energy Alliance. NWT residents received 976 rebates with a total value of $313,000. The energy efficient products and appliances that residents purchased will reduce greenhouse gas emissions by 2,425 tonnes per year and provide savings in energy costs of $458,180 per year.

- ECP provided funds to communities and non-profit organizations for retrofits of existing facilities to improve energy performance. A total of $124,662 was provided towards nine projects that will reduce greenhouse gas emissions by 130 tonnes per year and provide savings in energy costs of $66,739 per year. ECP also contributed $64,100 to support five studies and workshops on climate change and energy efficiency.

5. *Number of regulatory applications, renewals and environmental assessments coordinated.*

The Environmental Assessment and Monitoring (EAM) Unit coordinated the submission of technical comments and recommendations from ENR divisional and regional staff to resource management boards and agencies on 205 applications. These applications were for water licences and land use permits throughout the territory as well as leases on Commissioner's Land and Federal Crown Lands.

EAM also coordinated the interventions of GNWT departments in 18 environmental impact assessments involving major and minor resource development projects. The GNWT engages in environmental assessment (EA) and environmental impact reviews (EIRs) of projects within the NWT as well as those in neighbouring jurisdictions that have the potential to affect the NWT environment.

Regulatory Applications		
	2007-08	**2008-09**
Water Licences	29	3
Land Use Permits	93	56
Leases	40	132
Screenings	31	39

Environmental Assessments		
	2007-08	**2008-09**
NWT	15	16 EAs – 2EIRs
Nunavut	1	2
Yukon	0	1
British Columbia	1	0
Alberta	0	0

While the number of applications and assessments is a reflection of the level of activity in the NWT, it is only an indirect measure of the level of effort required to conduct the regulatory reviews and participate in the environmental assessments as effort will vary substantially based on the nature of the proposed development and the associated potential for environmental or socioeconomic impacts.

KEY ACTIVITY 2: FOREST MANAGEMENT

Description

The Forest Management Division (FMD) provides for the stewardship of NWT forests through sustainable management of forest resources and forest fire management.

Sustainable forest management is ensured through the collection of information on the state of forest resources; forest management planning; monitoring of forest health and changes to forest landscapes; regulation of forest practices and planning; and, compliance and reporting. Forest fire management is achieved through prevention, preparedness and forest fire response. Using the best science, technology and effective use of available fire response resources, forest fire management provides for the protection of people, property and other values at risk from forest fire. Developing an increased capacity of individuals, communities, industry and others to take responsibility for reducing fire hazards and forest fires is also a priority.

Major Program and Service Initiatives 2010/11

- The Forest Fire Management Program Review (reviewing the implementation of the NWT Forest Management policy and Fire Response Strategies) will be completed in the fall of 2010, having achieved development of key concepts and principles and the implementation in the 2010 forest fire season. Implementation of the Program Review and support for the budget requirements arising will be a focal point in 2010-2011.

- The update to the values-at-risk database, logging values on the landscape, to support wildland fire management decision processes under the NWT Forest Fire Management Policy will be substantially completed. Further work may be required following information gained from the Program Review.

- FMD will continue to work with the Canadian Forest Service to complete a carbon accounting pilot project. The objective is to improve estimates of carbon flux for a portion of NWT forests, information in support of climate change discussions.

- The potential for communities and northerners to use forest biomass as a green energy source will be a key focus area. FMD will work with the Environment Division and others to assess biomass energy potential in various communities. Community needs will be evaluated and forest resources surrounding the communities will be assessed for suitability and accessibility. New forest inventory projects will be proposed which includes 13 more communities and the entire Liard Valley.

- Forest inventory information has been completed for a large area in the Dehcho region along the Mackenzie River (2.8 million hectares). Discussions will be held with communities about landscape resource management planning and forest resource information needs of the communities.

- Communication processes with communities and stakeholders are being refined to strengthen the ability to engage other stakeholders to identify values-at-risk to wildland fire and to provide a better forum to develop plans and to resolve concerns.

- The communities of Norman Wells, Fort Providence, Enterprise and Jean Marie River have been targeted to develop FireSmart Community Interface Protection Plans.

- Implementation of new software products (EMBER, Spatial Precipitation and Risk Calculation System and the Forest Management Information System) is being completed to further integrate financial tracking and operational decision-making capacity, and support environmental monitoring.

- Research and recommendations on Forest Policy principles will be completed for future action in the development of new Forest Management Legislation and policy. A workplan outlining the key steps and procedures in the development of forest management policy and legislation will be completed for implementation in 2011-2012.

- FMD is evaluating cost effective options for leased office space in the community of Fort Smith.

- Continue to support collection and integration of TK for forest management.

Four Year Business Plan Update

Results to Date

Gathering Baseline Information

- FMD is working with the Canadian Forest Service, and others, to develop a series of products that deliver carbon accounting products for our forested landscape. The objective is to improve estimates of the forest landscape, how it is changing, and specifically carbon flux of NWT forests.

- FMD is developing an assessment, engagement and reporting plan for the continuous inventory areas from Kakisa through Fort Providence, Jean Marie River, Fort Simpson, and Wrigley. Products using this information will be available for Dehcho communities and businesses to use as a basis for their specific needs.

- New forest vegetation inventory products are available as baseline knowledge. New initiatives include an inventory investigating pine stands susceptible to mountain pine beetles. A new enhanced Landsat classification that provides additional attributes of height, density and carbon accumulations will be available for 2.3 million hectares in the southern part of the NWT. This will be the first year of re-measurements for the permanent forest monitoring plots.

Alternative Energy

- The potential for communities and northerners to use forest biomass as a green energy source is a key focus area. FMD will work with the Environment Division and others to assess biomass energy potential in various communities. Community needs will be evaluated and forest resources surrounding the communities will be assessed for suitability and accessibility. Key areas of work include forest inventory, and providing fundamental and sound information on appropriate forest biomass opportunities to potential users.

- FMD has an active role in implementing the NWT Biomass Strategy. Assessments and evaluations to ensure sound and valuable knowledge are obtained and shared with all northern parties is the objective. The template for doing Community Forest Resource Assessments has been enhanced to include the forest as a fibre source (i.e. to support biomass energy projects). Efforts are focused on developing woodlot options in the Yellowknife and Behchoko areas.

Sustainable Forest Management

- FMD has developed an operational audit protocol for assessing the sustainability of forest operations based on timber supply scenarios. Each region will be incorporated into implementation training. During 2009-2010, all timber use applications were reviewed in the context of maintaining sustainable fibre supplies. New areas where these assessments can be effectively done continue to expand as evaluations of the forest increase.

- The Dehcho Forest Resource Assessment project will produce reports addressing technical needs around sustainable forest uses. Community engagement is a key element in ensuring technical information is useful at the community level. This work will create a process as an example by which other regional projects can draw upon.

- FMD is completing projects that move communities and businesses forward in their sustainable use of the forest resources. These include the forest as a renewable energy source of biomass and those using logs and timbers as structural building materials.

Managing Forest Resources

- In cooperation with the Gwich'in Tribal Council and Gwich'in Renewable Resources Board, ENR has completed the *Gwich'in Forest Management Plan: A Framework for Forest Management*. The plan identifies concerns and outlines solutions to guide forest-related activities while minimizing conflicts among various interests. It is a framework for management and protection of forests in the Gwich'in Settlement Area.

- The areas of non-timber forest products and forestry education and extension activities remain an important program area despite lost capacity. Plans are in place to develop long-term programming in cooperation through contractors, other service divisions and through greater use of regional resources.

- Territorial processes for timber development are being reviewed to standardize and clarify proposal requirements, and to ensure informed and consistent application reviews. These include streamlining application procedures and consultation protocols.

Forest Renewal

- A forest renewal strategy will be released that identifies information and management pathways to address uses of our ecosystem classification products, climate change, and wildlife habitat. The forest landscape and how it is changing is of fundamental importance.

Forest Management Legislation and Program Review

- A four-year plan to create new forest management policy and legislation has begun. This will include development of a legislative framework and policy required to enable ENR to effectively manage forest sustainability, forest impact control, forest ecology, biodiversity, and climate change. Work is underway to establish a new incidental forest use authorization.

- ENR will complete by the start of fiscal year 2010-2011 the review and development of forest policy and legislation principles to guide the future development of forest policy and new forest legislation (protection and management) for the North.

- A forest fire management program review was initiated during the summer of 2009, with key principles and concepts arising from the review implemented for the 2010 forest fire season.

- A business case for replacing the Northwest Territories CL215 Air Tankers was completed followed by the development of options scenarios for the GNWT's owned air tanker fleet.

- The development of an Incidental Timber Permit approach will be completed by the end of fiscal year 2009-2010.

Risk Management Strategies

- Working collaboratively with Municipal and Community Affairs and northern communities, FMD is championing a revised Community Wildland Fire Protection Planning methodology based upon FireSmart principles. By the end of fiscal year 2009-2010, plans will be complete for the communities of Fort Smith, Kakisa, Tsiigehtchic, Fort Providence, Norman Wells, Enterprise and Jean Marie River.

Changes to Four Year Plan

- In conjunction with the government's green energy strategy, ENR has implemented strategic initiatives addressing the use of woody biomass as a green energy source.

- ENR has deferred the development and implementation of new forest policy and forest legislation (protection and management) until the completion of the *Wildlife Act* process. It is expected that the legislation initiative will proceed during the next Legislative Assembly.

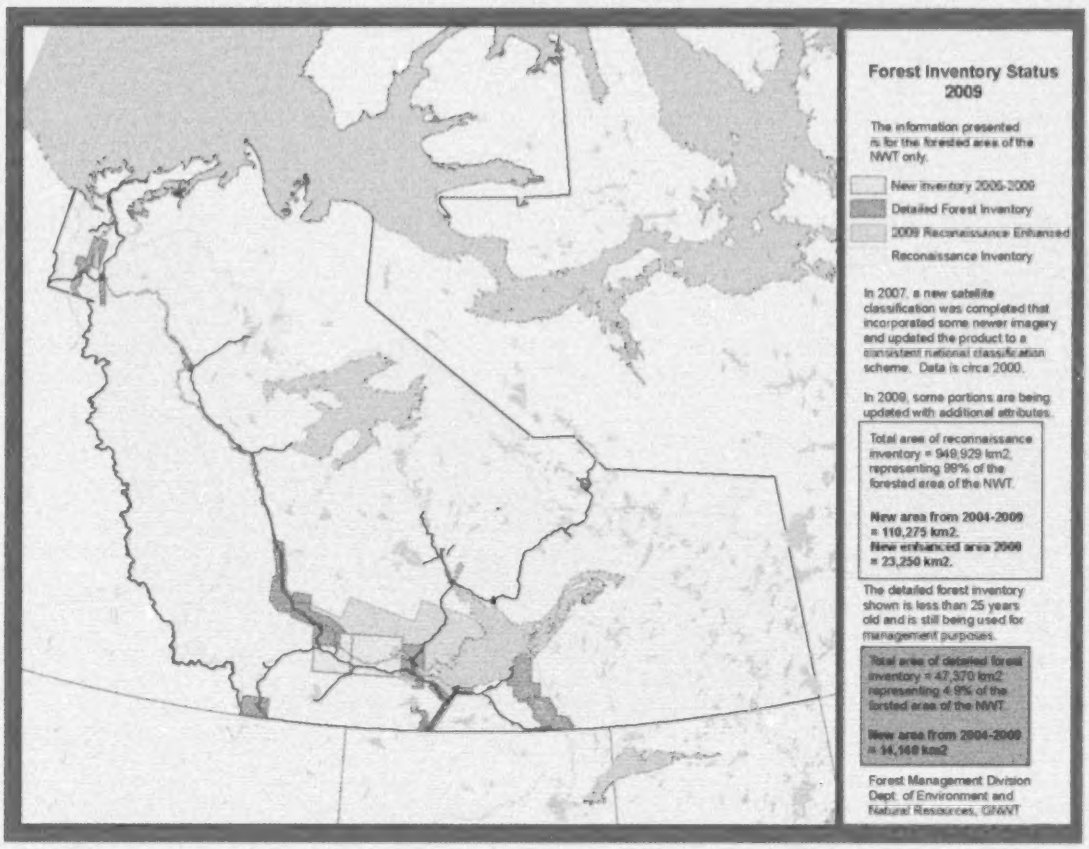
- ENR is pursuing options respecting the future of the Department's air tanker fleet. As noted above, a business case identified factors dictating the short-term future of the current air tanker fleet, and recommended options to be considered.

Measures Reporting

Measures identified in the four-year business plan for this key activity area.

1. Area of the NWT having data on the current state of the forest resource

The forest inventory program is an ongoing activity that provides information on forest vegetation used for resource and land use planning, assessing cumulative effects of development and monitoring and reporting on changes in our forests. The total area having detailed level forest inventory information is now at 4,700,000 hectares. New plans for an inventory in the Liard Valley have been drawn up and are being pursued as it meets the knowledge and business needs of the GNWT. During 2008-2009, the enhanced landsat classification was expanded to cover new areas to complete an assessment of the southern Dehcho with a further 2.3 million hectares.


Forest Inventory Status 2009
The information presented is for the forested area of the NWT only.
New inventory 2005-2009
Detailed Forest Inventory
2009 Reconaissance Enhanced
Reconaissance Inventory
In 2007, a new satellite classification was completed that incorporated some newer imagery and updated the product to a consistent national classification scheme. Data is circa 2000.
In 2009, some portions are being updated with additional attributes.
Total area of reconnaissance inventory = 949,929 km2, representing 98% of the forested area of the NWT.
New area from 2004-2009 = 110,275 km2.
New enhanced area 2009 = 23,250 km2.
The detailed forest inventory shown is less than 25 years old and is still being used for management purposes.
Total area of detailed forest inventory = 47,370 km2 representing 4.9% of the forsted area of the NWT.
New area from 2004-2009 = 14,140 km2
Forest Management Division
Dept. of Environment and Natural Resources, GNWT

2. *Number of community Wildland Fire Risk Mitigation plans completed*

Risk mitigation planning is a relatively new activity in fire management. This enhanced approach to community protection planning focuses on methodology development and completion of a pilot plan in the previous reporting period. A pilot project in Fort Smith developed a planning framework for use in communities-at-risk.

During 2008-2009, work commenced on plans for the communities of Fort Smith, Kakisa and Tsiigehtchic. The work was carried over into fiscal year 2009-2010 due to unanticipated delays in contract completion.

Protection plans will have been completed by fiscal year end 2009-2010 for the communities of Fort Smith, Kakisa, Tsiigehtchic, Fort Providence, Norman Wells, Enterprise and Jean Marie River.

KEY ACTIVITY 3: WILDLIFE

Description

Wildlife initiatives assess and monitor wildlife, habitat, species at risk, wildlife health and biodiversity as well as coordinate initiatives to address impacts on wildlife from human activity. Functions include developing plans and programs to support the conservation of wildlife resources, preparing public information materials on wildlife management and safety and administering the sport fishery.

Major Program and Service Initiatives 2010/11

Through the strategic initiative, Managing this Land, major investments are proposed to support environmental stewardship actions related to recovery of barren-ground caribou numbers, manage species at risk (woodland caribou and wood bison), enhance compliance and public education activities, improve ecological monitoring by updating the ecosystem classification for the NWT, implement new species at risk legislation and draft a new *Wildlife Act*.

- Implement the Wood Bison Management Strategy and address wood bison management issues by working with communities to complete management plans for Mackenzie, Nahanni and Slave River Lowlands wood bison populations.

- Continue activities to help caribou recover by implementing management and monitoring actions of the new Five-Year Caribou Management Strategy 2011-2015.

- Implement the NWT Action Plan for woodland caribou.

- Continue developing best management practices to reduce environmental impacts from human activities by completing guidance documents for mining activities.

- Enhance monitoring of wildlife health issues that affect humans and wildlife such as rabies, tularemia, bovine tuberculosis and brucellosis, West Nile virus, and avian influenza.

- Continue to support collection and integration of traditional knowledge for wildlife management.

- Report on the general status of wildlife species in the NWT, Western NWT Biophysical Study and wildlife research permits issued.

- Celebrate 2010 as the International Year of Biodiversity by:
    - Releasing report on important wildlife areas in the NWT;
    - Releasing a special State of the Environment Report focusing on biodiversity actions;
    - Conserving biodiversity by establishing Critical Wildlife Areas; and
    - Preparing public education materials on the importance of conserving NWT biodiversity.

Four Year Business Plan Update

Results to Date

Best Management Practices, Standards and Guidelines

- Consultation on the second draft of environmental guidance document to reduce environmental impacts from seismic exploration activities was completed. This document is being prepared in collaboration with Environment Canada and INAC to assist industry and regulators in preparing and reviewing applications and to promote the use of innovative practices and equipment to protect the NWT environment.

Wildlife Management Strategies, Plans and Agreements

- A draft NWT Bison Management Strategy and draft NWT Action Plan for woodland caribou was released for consultation. The Slave River Lowlands Bison population survey was completed. ENR supported a Sahtu Renewable Resources Board Traditional Knowledge study on caribou. One objective of this three-year study is to identify traditional Dene and Métis best practices for barren-ground caribou stewardship.

- Consultations on draft NWT Action Plan for woodland caribou were completed.

- Implemented actions under the NWT Barren-ground Caribou Management Strategy, including calving ground delineation surveys for seven herds, spring calf recruitment surveys, fall Bathurst composition survey, winter distribution surveys for four herds, deployed collars to prepare for 2009 surveys to update herd estimates and collect harvest data. A peer review of NWT caribou studies was completed by Alberta Research Council.

NWT Species at Risk Act and Wildlife Act

- Consultations on the *Species at Risk (NWT) Act* were completed. The *Act* was introduced into the legislature in the fall of 2008 and was passed in June 2009. A working group was formed with Aboriginal organizations and wildlife co-management boards to begin work on revising the *Wildlife Act*.

Classifying and Mapping Ecosystems

- Updated Taiga Plains technical report and completed analyses to prepare Boreal Cordillera report as part of revising NWT ecosystem classification framework.

Changes to Four Year Plan

- Protected Areas was moved to the new Land and Water Unit. Updates on PAS are reported under the Corporate Management Activity.

- One means to advance protected areas is Critical Wildlife Areas under the NWT *Wildlife Act*. The Wildlife division and Land and Water Unit in ENR will work with interested communities to establish these areas from existing candidate sites.

Measures Reporting

1. *Reports on wildlife studies*

The 2007-2008 annual Western NWT Biophysical Report was completed; all barren-ground caribou calving areas were delineated; ten ENR file and manuscript reports published; and the Alberta Research Council Peer Review of NWT barren-ground caribou management studies was completed.

2. *Number of wildlife surveys completed*

Species	Number of Surveys – 2008-2009
Small mammal survey	8 areas in NWT
Arctic Hare survey	9 areas in NWT
Barren-ground caribou - Spring composition survey - Calving ground delineation survey - Fall sex composition survey	 - 4 (Bluenose-East, Bluenose-West, Bathurst, Ahiak) - 7 (Cape Bathurst, Bluenose-East, Bluenose-West, Bathurst, Ahiak, Beverly - 1 (Bathurst)
Moose	1 in the Dehcho
Peregrine falcon	0 (these are done every 5 years)
Boreal caribou - Spring calf survival - June calf production - Fall calf survival	 - 4 (Inuvik, Sahtu, Dehcho and South Slave regions) - 4 (Inuvik, Sahtu, Dehcho and South Slave regions) - 4 (Inuvik, Sahtu, Dehcho and South Slave regions)
Muskox - Spring calf survival - June calf production - Fall calf survival	 - 1 (Sahtu) - 1 (Sahtu) - 1 (Sahtu)
Wolf Den Productivity	2 surveys on the summer range of the Bathurst herd

3. *Number of samples analyzed for disease*

	2008/2009	
	Samples Tested	**Positives**
Wildlife & Zoonotic Diseases		
Anthrax	7 surveillance flights	Not detected
Avian Influenza & West Nile Virus	38	0
Brucellosis & Tuberculosis in Wood Bison (some tests pending)	60	0
Brucellosis		
- Muskox	323	0
- Caribou	104	Pending
Chronic Wasting Disease	104	0
Rabies	17	4
Trichinella	282	Pending
Hunter Submitted Samples	200	Various diseases detected
Contaminants		
Moose	46	Health Advisory Issued
Caribou	108	Normal Background Levels
Total	**1282**	

c) Update on Strategic Activities

STRATEGIC INITIATIVE: MANAGING THIS LAND

Action: Continue to Develop Governance

Description

Develop and Implement a Land Use Framework

The GNWT has initiated the development of a Land Use Framework to guide land use decisions as a priority under the Managing this Land strategic initiative. The implementation of the Land Use Framework under Managing this Land will require comprehensive geomatics, management and information support systems. These systems will provide access to more complete, timely and accurate information essential to ensuring quality decisions are made in a manner consistent with the Framework.

The Land Use Framework drives a change in mindset and operating practices in the use of geomatics related services in the GNWT today. Traditionally, geomatics services have been delivered primarily in support of program activities. The benefits of collaborating and exchanging information between program areas were recognized; however, they were perceived as a secondary benefit and as a result did not receive a significant amount of effort. With the Land Use Framework, information sharing across the GNWT and with our partners is an essential element of success. It is therefore critical that the underlying support systems be in place.

National parks, protected areas, proposed development, land claim agreements and third party interests all put pressure on the land base. In order for the GNWT to make informed decisions on land use, consolidated information outlining current and proposed land use from a variety of organizations is needed. This activity proposes the implementation of data and information management tools to support the decision management issues associated with the Land Use Framework.

Activity to Date

Develop and Implement a Land Use Framework

- As the resources for the implementation of this activity only become available during the 2010- 2011 fiscal year, the activity to date has been centred on project inception activities and initial planning activities. This work is expected to continue throughout the remainder of the 2009-2010 fiscal year.

Planned Activities – 2010/11

Develop and Implement a Land Use Framework

- This project is intended to complete the required analysis, development and implementation of necessary support systems to deliver on the objectives of the Managing this Land strategic initiative. For these purposes, the term "system" refers to the appropriate people, processes and tools (technological or otherwise) in place to help ensure quality decision making based on the most accurate available information.

- This activity will seek to identify the functional requirements of a system or systems to provide necessary information to decision makers around current and proposed land use. It will also include a recommended implementation plan and validate the ongoing O&M requirements of the final recommended solutions.

- The project will be broken into the following phases:
    - Project initiation and engagement – winter 2010 (includes formal project scoping and governance structure as well as the initial engagement of key stakeholder groups and selection of project members)
    - Information gathering and analysis – summer/fall 2010 (includes functional analysis, requirements development and solution recommendations).
    - System development and deployment - winter 2011

Planned Activities – 2011/12 and Future Years

Develop and Implement a Land Use Framework

- As a result of the dynamic and changing nature of land use, and the anticipated increase in available information, there is an ongoing need to continue to effectively manage these tools. These activities will include support and maintenance of the implemented systems and underlying software and hardware. This will also include the continuing need to actively and progressively manage the data and information within the systems, including the acquisition and integration of new information as it becomes available.

Action: Protect Territorial Water

Description

NWT Water Stewardship Strategy Development and Implementation

NWT waters are vital to ecosystems and lifestyles in the NWT. NWT residents expect NWT waters to remain clean and abundant, despite stresses of climate change and development. To this end, the GNWT initiated collaborative work to ensure interested players could collectively ensure NWT waters are protected or conserved for future generations. Early on it was recognized that work on an NWT strategy would require many people and agencies to be involved, ongoing use of science and traditional knowledge to inform water stewardship decisions, and the recognitions that watersheds must be looked at as a whole. As a public government for NWT community residents, ENR focuses its leadership on initiatives that promote: the protection of community public water supply sources, the development of aquatic ecosystem indicators, and the management of waters that flow between provincial and territorial jurisdictions (transboundary waters).

Protect Public Water Supply: Source Watersheds

ENR in collaboration with Municipal and Community Affairs (MACA), Health and Social Services (HSS), and Public Works and Services (PWS) helped develop the 2005 *Managing Drinking Water Quality in the NWT: A Preventative Framework and Strategy*. One of the framework's three pillars, Keeping NWT Water Clean, calls for coordinated watershed decision-making, effective legislation, and education, as well as testing of source water quality and community water licencing. Crucial to these actions is knowledge about the watershed that supplies community drinking water. In order to protect community public water supply sources, residents must be aware of hazards and associated risks within these watersheds.

Development of Aquatic Ecosystem Indicators (AEI)

Changes to the health of aquatic ecosystems and any associated risks to human health can only be assessed effectively through systematic measures of set indicators in specific well-selected areas. Currently routine, but limited, monitoring of water quality and quantity occurs at specified locations. While this addresses physical and chemical parameters, the biological components of ecosystems, are overlooked. Yet these can provide early warning signals to detrimental changes to aquatic ecosystem health and add to the understandings of potential risks to these systems. Both scientific and traditional knowledge contributes to these understandings.

Participation in Management of Transboundary Waters

The 1997 Mackenzie River Basin (MRB) Transboundary Waters Master Agreement promotes an ecosystem-based approach to water resources management within the MRB. Signatories recognized the likelihood of rapid development, especially upstream energy and associated community development, within the Basin, and the need for collaboration. But current funding levels limit what initiatives can be undertaken to fulfill the Agreement's intent. Notably, the NWT is the only jurisdiction in the MRB that does not have water management jurisdiction within a provincial mandate; therefore the NWT is represented by both the GNWT and INAC. As the downstream jurisdiction in the NWT, considerable onus is also on the Government of Canada to assist with cross-border water management.

Activity to Date

NWT Water Stewardship Strategy Development and Implementation
A discussion paper, Northern Voices: Northern Waters – Towards an NWT Water Resources Management Strategy, was drafted in 2008. The paper described how water is used in the NWT, the values associated with this resource, and suggested principles and approaches for water management. In the summer of 2008, the GNWT and INAC invited Aboriginal governments to participate in an Aboriginal Steering Committee that guided the development of an NWT water stewardship strategy. Governments, regulatory bodies and non-governmental organizations provided input through a series of workshops held in 2009; community dialogue occurred in most communities. At the invitation of the Minister of Environment and Natural Resources, an international water forum provided input. A Draft Strategy received broad public input during the winter of 2009-10 to finalize the Strategy and further define water stewardship actions necessary to implement the Strategy.

Protect Public Water Supply: Source Watersheds
In 2008, NWT and community watersheds were delineated on maps published on the web through the NWT Centre for Geomatics. As well, spatial data related to watersheds was acquired and added to in 2009. The June 2008 Framework Action Plan highlighted three areas that require work over the next four years: source water protection, training and support for community water treatment plant operators, and public education and engagement. Cooperative educational work with MACA, HSS, and PWS continues. In 2009-10, in conjunction with broad consultation on a Draft Strategy, regions and communities are engaged to explore needs and interests to develop instruments to protect community public water supply instruments. Instruments may include: improved prior notification and consultation protocols, especially for communities seeing rapid development in their watersheds; interactive mapping; and conceptual risk assessment models.

Development of Aquatic Ecosystem Indicators (AEI)
To date in the NWT only limited studies or routine monitoring occur to assess aquatic ecosystem health. In 2009 historic studies, ENR undertook to inventory studies and summarize conclusions to prepare for future work. In addition, ENR participated in or investigated possible partnership programs such as the Peace-Athabasca Delta Environmental Monitoring Program, the CABIN program on invertebrates, and community-based monitoring programs. All studies benefit from traditional and local knowledge as well as scientific programs. The Canada-wide Strategy for the Management of Municipal Wastewater Effluent requires comprehensive monitoring and environmental risk assessment and reporting. Baseline work was begun through the Northern Research Working Group. Regional and national water stewardship initiatives related to biodiversity and the valuation of natural capital, or ecological goods and services also benefit from increased AEI programs being investigated.

Participation in Management of Transboundary Waters
In 2007 the NWT, represented by ENR and INAC, signed a Memorandum of Understanding with Alberta towards an Alberta-NWT Bilateral. Building on 2002 work, in 2008 more information was gathered from existing datasets to inform negotiations. In 2008, for the first time since the Agreement was signed, MRB Ministers met to discuss financial needs, future priorities, and roles of the Board; a detailed business plan with options for consideration was prepared. In 2009, MRB Board members developed a multilateral negotiations guidance document to guide negotiations between jurisdictions. A 2003 MRB State of the Aquatic Ecosystem Report (SOAER) highlighted overall health of the Basin, but pointed out discrepancies between some scientific and traditional knowledge signals. With this in mind, a yet-to-be completed 2009 SOAER, championed by the NWT, focuses on energy development and more fully presents perspective on Basin health using traditional knowledge. In 2009, the MRB Board completed a hydrological model for the Mackenzie

River that allows flow analysis should different development circumstances have taken place; this informs what circumstances to avoid or helps to plan for mitigation for possible future scenarios. In 2009, the Minister of ENR presented NWT concerns to a Government of Canada Standing Committee seeking to define federal roles and responsibilities regarding oil sands. Through MRB member communications, ENR continues to track major upstream development initiatives, initiating work to improve the implementation of the Board's Prior Notification and Consultation Protocol so that more timely and fulsome information is obtained and distributed within the NWT. All of these activities to date inform future undertakings.

Planned Activities – 2010/11

NWT Water Stewardship Strategy Development and Implementation
Finalize a NWT Water Stewardship Strategy, affirm commitment by multiple partners, and take collaborative actions to implement it. In 2010-11, interagency work will continue to define action plans, leverage further participation, and support partnership initiatives related to various agencies' mandates and interests. A coordinating body will be formalized to guide ongoing Strategy implementation, evaluation of strategy success, then priority setting.

Protect Public Water Supply: Source Watersheds
Considering current and future needs and in partnership with others, more detailed work to better delineate community watershed areas of concern will be undertaken, especially for the four NWT communities that draw on groundwater (Fort Liard, Nahanni Butte, Whati and Wrigley). In 2010-11, select communities will initiate pilot work to design and develop chosen decision support tools, such as a conceptual risk model. Risk associated with community operations and development, for instance, municipal wastewaters and solid waste disposal, fuel storage, and infrastructure or industrial development, are the focus of such pilots. This work supports the development of an implementation plan and agreements for the Canada-wide Strategy for the Management of Municipal Wastewater Effluent.

Develop Aquatic Ecosystem Indicators
Develop viable aquatic ecosystem indicators and associated monitoring programs for NWT watersheds, based on methodologies that address sustained ecosystem health and valued aquatic ecosystem components. Science, traditional and local knowledge informs the selection of a suite of indicators that then must be monitored through community-based monitoring or other collaborative programs. 2010-11 pilot projects will be instigated, considering factors such as risk level, partnership interests, and prime geographic indicator areas, such as deltas.

Participation in Management of Transboundary Waters
Advance negotiations towards transboundary water resources management agreements for watersheds shared with member jurisdictions. Use information shared in spring 2010, to begin Agreement negotiations in fall 2010; these are anticipated to last for two years. NWT First Nations will be engaged during each phase of negotiations.

Planned Activities – 2011/12 and Future Years

NWT Water Stewardship Strategy Development and Implementation
With INAC, ENR, on behalf of the GNWT, will continue to lead a coordinating body to ensure Strategy promotion and implementation. As well, ENR will lead leveraging for those initiatives most relevant to its mandate and GNWT interests, for instance those discussed here.

Protect Public Water Supply: Source Watersheds
Continue to expand knowledge base and develop source water protection instruments, as well as extend pilot communities. Continue to integrate source water protection instruments with legislative, policy or planning instruments, such as regional land use plans or environmental risk assessment under the Canada-wide Strategy for the Management of Municipal Wastewater Effluent.

Develop Aquatic Ecosystem Indicators
Intensive AEI work requires considerable commitment through partnerships and dedicated resources. ENR will continue work to promote such partnerships and leverage funding, so that programs can expand to ensure that aquatic ecosystem health is assessed and maintained in the long-term. Community-based monitoring pilot projects will expand in number, scope and intensity.

Participation in Management of Transboundary Waters
Continue to participate in MRB Board collaborative initiatives. Complete negotiations and undertake approval processes for transboundary waters agreements with Alberta, Saskatchewan, and British Columbia, as well as continue to implement the Yukon-NWT bilateral agreement, including the development of an appropriate suite of aquatic ecosystem indicators.

Action: Mitigate and Adapt to Climate Change Impacts

Description

This strategic action focuses on enhancing the GNWT's efforts on climate change through improved planning and coordination; continued delivery of the Greenhouse Gas Strategy and Energy Plan; and specific activities to adapt to impacts of climate change.

Climate Change Adaptation Plan
The Climate Change Adaptation Plan will establish mechanisms to provide information and support to decision makers at all levels to incorporate climate change considerations into their activities. The Plan builds on actions already being taken by GNWT Departments.

Delivery of Greenhouse Gas Strategy
The Greenhouse Gas Strategy provides a coordinated approach to address climate change issues in the NWT. Actions have been developed to address emissions from GNWT, residential, community and business activities through promotion of energy efficiency and conservation and development of alternative energy sources.

Alternative Energy and Emerging Technologies
The Alternative Energy and Emerging Technologies program continues and expands upon the GNWT Energy Plan - Alternative Energy Sources initiative started by the 15th Legislative Assembly. Alternative energy (wind, solar, geothermal, biomass) are alternatives to carbon-based energy sources. The program includes implementation of the Biomass Strategy, deployment of wind energy electrical supply in the Inuvialuit Settlement Region and support for exploration and assessment of geothermal energy technology. The program will expand to include solar hot water for NWT pools in 2010/11.

Activity to Date

Climate Change Adaptation Plan

- In 2007, ENR surveyed GNWT departments and prepared a report on the effects of climate change impacts on their activities and the steps being taken to adapt to those impacts. The survey identified a number of critical needs for information and coordination to assist departments to incorporate climate change considerations into decision making, especially regarding new and existing infrastructure. ENR is now preparing a NWT Climate Change Adaptation Plan to address these issues and also assist non-GNWT interests adapt to climate change impacts.

- ENR had preliminary discussions with Environment Canada about working together to develop regional climate change scenarios for the NWT. Federal funding, through INAC, has enabled ENR to address adaptation planning initiatives in the current fiscal year and to develop in-house expertise to leverage further federal funding and expertise in subsequent years.

Delivery of Greenhouse Gas Strategy

- ENR has reported on the 39 actions identified in the NWT Greenhouse Gas Strategy.

Alternative Energy and Emerging Technologies

- ENR has secured technical studies on the NWT opportunities for energy from woody biomass, a technical overview on wood pellet production, and a technical feasibility assessment for the installation of wood pellet production facilities in the NWT.

- ENR has secured resources and completed a sawmilling development project in Jean Marie River and is now developing a concept framework for biomass energy in the community.

- A pilot project on a wood marshalling yard feasibility has been implemented for the Fort Providence community, testing the strictures and feasibility of the concept in management of biomass and forest industry products.

- Solar hot water technologies have been integrated into community swimming pools in four communities. It is expected this technology will eliminate heating costs for seasonal pools and reduce water heating costs by up to 50% in year-round pools.

Planned Activities – 2010/11

Climate Change Adaptation Plan

- Regional climate scenarios will be refined. Permafrost mapping information will be used to identify permafrost vulnerabilities arising from future climate warming. Support and information will be provided to affected departments, communities and regional governments to adapt to climate change.

Delivery of NWT Greenhouse Gas Strategy

- ENR will continue to implement aspects of the Greenhouse Gas Strategy and will provide advice and support for other departments to implement actions identified in the Greenhouse Gas Strategy. A report on Greenhouse Gas Strategy actions will be prepared annually.

- GNWT greenhouse gas emissions will be inventoried and support will be provided to other parties in the NWT in preparation of their greenhouse gas emission inventories. Annual inventories of total NWT emissions will be prepared for reporting to The Climate Registry.

Alternative Energy and Emerging Technologies

- ENR will provide funding and technical support to projects that demonstrate use of alternative energy technologies (eg. solar hot water heating, photovoltaic panels, wood pellet heating) through the Energy Conservation Program, provide funding to NWT residents who purchase energy efficient products or complete renovations to reduce greenhouse gas emissions through the Energy Efficiency Incentives Program and will continue to develop GNWT and community knowledge and capacity to further reduce greenhouse gas emissions.

- *Biomass Strategy Development and Implementation* - ENR will continue with the completion of forest resource inventories which will provide information necessary for feasibility studies or active projects in biomass energy, drawing on the forest resource on a sustainable basis. Biomass heating options will be promoted through the expansion of wood pellet infrastructure, transportation and storage, and expanding or establishing new district heat systems using biomass energy as the heating source. ENR will also promote combined heat and power technologies where applicable and work with an interested community to design and begin installation of a combined heat and power pilot project.

- *Wind Energy Supply* - Installation of four wind turbines in Tuktoyaktuk is scheduled for the winter of 2011 with operation commencing in July 2011. Planning and community consultations for additional installations in Ulukhaktok, Sachs Harbour and Paulatuk will be completed.

- *Solar Hot Water Heating Systems for Community Pools* - ENR will integrate solar hot water technologies into additional four or five community swimming pools.

- *Support for Geothermal Technology* – ENR will fund technical evaluation studies, collaborative work and community consultations and business planning for geothermal energy production in the Dehcho Region.

Planned Activities – 2011/12 and Future Years

Climate Change Adaptation

- Work will continue on ensuring regional climate scenarios incorporate recent climate data. Risk assessments will be conducted to assess the potential impacts of permafrost vulnerabilities arising from future climate warming. Affected departments, communities and regional governments will continue to receive support and information on climate change adaptation.

Delivery of NWT Greenhouse Gas Strategy

- ENR will continue to collaborate with other GNWT departments to implement actions identified in the Greenhouse Gas Strategy. A report on Greenhouse Gas Strategy actions will be prepared annually.

- An annual inventory of GNWT greenhouse gas emissions will be prepared and ENR will assist other parties in the NWT in preparation of their greenhouse gas emission inventories. Annual inventories of total NWT emissions will be prepared for reporting to The Climate Registry.

Alternative Energy and Emerging Technologies

- ENR will continue the Energy Conservation and Energy Efficiency Incentives programs to provide funding and technical support to projects that demonstrate use of alternative energy technologies (eg. solar hot water heating, photovoltaic panels, wood pellet heating), reduce residential greenhouse gas emissions and develop GNWT and community knowledge and capacity.

- *Biomass Strategy Development and Implementation* - Completion of forest resource inventories will provide information necessary for feasibility studies or active projects in biomass energy. Support will be provided for biomass projects focusing on expansion of wood pellet infrastructure, transportation and storage, and expanding or establishing new district heat systems using biomass energy as the heating source. ENR work with an interested community to complete the installation of a combined heat and power pilot project by 2012. Additional combined heat and power projects will be pursued in future years.

- *Wind Energy Supply* – Commence operation of four wind turbines by July 2011 and additional installations in Ulukhaktok, Sachs Harbour and Paulatuk will be completed in future years.

- *Solar Hot Water Heating Systems for Community Pools* - ENR will integrate solar hot water technologies into additional four or five community swimming pools in 2011-12.

- *Support for Geothermal Technology* – ENR will identify options for geothermal energy production based upon technical evaluation studies, collaborative work and community consultations and business planning conducted in 2009-10 and 2010-11.

Action: Improve Environmental Monitoring Efforts

Description

To effectively manage the land and work with partners on environmental issues, it is important appropriate information is collected and shared to support informed decisions. This action will advance the availability of environmental information and associated monitoring and reporting systems.

Eco-Region Mapping
Eco-region mapping provides a current picture of the land, which can be used to assess potential environmental impacts of development and monitor impacts from climate change. The approach to mapping the eco-regions of the NWT is forward-looking and provides a basic reference point for detecting vegetation and landscape changes, environmental assessment and resource management.

Western NWT Biophysical Study
The Western NWT Biophysical Study was established in 2003 to help ensure baseline data necessary to assess, mitigate and monitor the environmental impacts of proposed developments in the Western NWT is available to industry, regulators, communities and governments. The program focuses on areas within the mandate of ENR-wildlife, wildlife habitat, forests and air quality. Partnership funds provide half of the resources used for the research projects.

Activity to Date

Eco-region mapping
- Released Taiga Shield Technical Report and poster
- Released revised edition of Taiga Plains (Mackenzie Valley) Technical Report.
- Published Boreal and Taiga Cordillera report and layperson poster
- Conducted fieldwork for the Southern Arctic (aerial surveys, collection of used fuel drums and field accommodation)
- Undertook workshops and contracts to complete analysis of the Southern Arctic

Western NWT Biophysical Study
- Released 2007-2008 annual report on Western NWT Biophysical Study
- Continued boreal caribou studies to monitor movements and productivity in the Inuvik, Sahtu, Dehcho and South Slave regions
- Continued monitoring grizzly bear movements and productivity in relation to industrial activity in the Inuvik region
- Held biennial Dehcho regional wildlife workshop in October 2008
- Monitored air quality and report annually
- Continued cumulative effects modeling for boreal caribou
- Continued forest habitat classification

Planned Activities – 2010/11

Eco-region mapping

- Publish Southern Arctic technical report and layperson poster
- Conduct fieldwork for the Northern Arctic (aerial surveys, collection of used fuel drums and field accommodation)
- Undertake workshops and contracts to complete analysis of the Northern Arctic

Western NWT Biophysical Study

- Release 2009-2010 annual report on Western NWT Biophysical Study

Planned Activities – 2011/12 and Future Years

Eco-region mapping

- Complete revision of NWT ecosystem classification in 2011-2012 with release of Northern Arctic technical reports and posters

Western NWT Biophysical Study

- Release annual reports on Western NWT Biophysical Study
- Undertake ten-year review of program in 2013

Action: Environmental Stewardship

Description

The careful and responsible management of our natural resources and the environment is of critical importance to the people of the Northwest Territories. This strategic action will advance legislation, policies, plans and programs to support the stewardship and sustainable use of the environment and its natural resources.

Stewardship (Monitoring Caribou Herds)
Stewardship actions are needed to help barren-ground caribou herds recover, manage species at risk (wood bison, woodland caribou, polar bear), and manage effects of habitat change caused by natural disturbance, climate change and human activities that threaten woodland boreal caribou and barren-ground caribou winter range.

Species at Risk Act
The *Species at Risk Act* establishes a process to determine which NWT species are at risk, how the species at risk and its habitat should be protected and conserved, and how to help each species recover. It will apply to all native wild species in the NWT.

Wildlife Act
The *Wildlife Act* will reform wildlife management law by enacting legislation that is comprehensive, enforceable, and respectful of Aboriginal and treaty harvesting rights.

Risk Management Strategies – Community Protection Plans
Reducing the risk to communities from wildland fire is being accomplished through advanced planning and adoption of FireSmart principles. The potential for communities to be threatened by wildfire will be assessed and risk management strategies will be identified in Community Wildland Fire Protection Plans.

Waste Recovery Program
Waste recovery and recycling reduces our use of raw materials, saves landfill space, reduces emissions of greenhouse gases and other pollutants. The waste reduction and recovery program will expand to reduce our impact on the environment.

Traditional Knowledge Implementation Plan
The Traditional Knowledge Implementation Plan will increase the number and quality of programs that successfully incorporate TK, and also increase the acceptance of TK as a valid source of knowledge by GNWT Departments.

Protected Areas – Critical Wildlife Areas
ENR will work with communities to sponsor identified sites as Critical Wildlife Areas and to further develop the Critical Wildlife Areas regulations to be an effective legislative tool. The PAS Secretariat will continue to promote the conservation of biodiversity through support to communities with sites moving through the PAS process, support to GNWT departments sponsoring candidate sites with territorial legislated tools, and through ongoing ecological representation analysis. The approval of a four-year Territorial Action Plan will describe the objectives and tasks required to complete the establishment phase of the PAS.

Activity to Date

Stewardship (Monitoring Caribou Herds)

- All NWT barren-ground calving grounds were delineated in 2008 and herd estimates are being updated in 2009. Winter distribution surveys were conducted in spring 2009 and collars deployed to prepare for summer 2009 surveys. The management plan for the Cape Bathurst, Bluenose-East and Bluenose-West is being prepared by a multi-agency working group involving NWT and Nunavut government and co-management boards. Winter road check stations were set up on active winter roads to track harvest. The Alberta Research Council completed a peer review of NWT caribou studies. ENR tabled a management response in the legislature in June 2009.

- The draft Wood Bison Management Strategy was released in winter 2009 and consultation was initiated on the strategy and proposed immediate measures. Committees were being established with communities to develop wood bison management plans over the next two years for the various populations.

- The draft NWT Action Plan for boreal caribou was released for review and is being revised. A draft of the NWT/BC/Yukon management plan for woodland mountain caribou was prepared.

- The NWT/Nunavut polar bear management agreement is being completed and will support the existing user-to-user agreements. The NWT participated in Canadian delegations related to the International Agreement on the Conservation of Polar Bear and their Habitat and the US/Canada MOU on Polar Bear Management.

- The first NWT State of Environment report was released in June 2009 and tabled in the legislature. The highlights report indicates that for the most part, the NWT has clean air and water, and productive forests, land and wildlife. The report provides insight into our changing environment and sounds an early warning about changes we may see over the next 20 years. The full version is available on the web and components are updated annually.

Species at Risk Act

- The NWT *Species at Risk Act* was introduced into the legislature in the fall of 2008 and passed by the legislature in June 2009. The Species at Risk Secretariat will be established in fall 2010. The new act will come into effect in early 2010.

Wildlife Act

- A new working group was set up with Aboriginal organizations and wildlife co-management groups to revise the *Wildlife Act*. Two meetings were held.

Risk Management Strategies – Community Protection Plans

- ENR is implementing an updated approach to wildland fire protection planning based upon FireSmart principles. The FireSmart approach includes three levels of planning (the community, the interface, and the landscape level) through which the threat from wildfire is assessed and risk mitigation opportunities identified. A planning model which will form the basis of Community Wildland Fire Protection Plans (CWFPP) for communities in the north has been developed. These plans identify and prescribe sound risk management strategies that will foster improved public safety and complement the current NWT Forest Fire Management Policy.

- Using strategic initiative monies and internal resources, by the end of fiscal year 2009-2010, risk management planning will be completed for the communities of Fort Smith, Kakisa, Tsiigehtchic, Fort Providence, Norman Wells, Enterprise and Jean Marie River.

Waste Recovery Program

- Initiate the implementation of a Paper Products Diversion Initiative. Funding from the Environment Fund (up to $100,000 each year) will be used to encourage businesses, non-profit groups and municipalities to divert paper products from NWT landfills through innovative projects and/or research and development. Preferences will be given to partnerships between municipalities and businesses or municipalities and non-profit groups. The goals of this initiative are to divert paper products from NWT landfills, create local markets for waste paper products and create local job opportunities. ENR will also encourage all GNWT offices to recycle paper products. This service is already available in some larger communities.

- Stakeholder and public consultations were conducted on amending the Beverage Container Regulations to add milk containers to the current deposit-refund Beverage Container Program. Initiate the implementation of this program during 2009-2010.

- Design a program and draft necessary regulations for implementing fees on single-use retail plastic and paper bags. The purpose of the fee will be to significantly reduce and eventually eliminate the use of these items in the NWT. The fee collected would not be reimbursed and no NWT-wide recycling program would be implemented. ENR will consult with the public/stakeholders on the regulations and implement a legislated program in 2009-2010.

Traditional Knowledge Implementation Plan

- An ENR TK Implementation Plan and a GNWT TK Implementation Framework were developed. Orientation and awareness training sessions were initiated with regional staff to understand TK responsibilities and obligation under legislation and related environmental management structures, and TK research strategies. A Best Practices guide was prepared to assist ENR staff in collaborative research and the collection of TK literature and material was initiated to establish a TK resource library.

Protected Areas – Critical Wildlife Areas

- A new NWT Protected Areas Strategy action plan is currently being developed with partners to complete the establishment of existing candidate sites by 2014.

Planned Activities – 2010/11

Stewardship (Monitoring Caribou Herds)

- Implement new five-year barren-ground caribou management strategy 2011-2015. Work with co-management boards to implement actions for caribou recovery. Complete drafts of herd management plans (Bluenose-West, Bluenose-East). Work with Tlicho Government to establish a process for management of the Bathurst herd. Complete study to assess cumulative effects on barren-ground caribou. Support traditional knowledge studies to provide information for decision-making and support caribou recovery. Complete inter-jurisdictional agreements with Yukon and Nunavut on caribou monitoring and management actions.

- For key species at risk, complete wood bison management plans for the three populations and implement the NWT Action Plan for boreal woodland caribou and update polar bear management actions.

- Prepare public education material for stewardship roles for industry, enhance patrols and begin development of hunter education program to enhance stewardship ethic.

Species at Risk Act

- Implement the new *Species at Risk Act*.

Wildlife Act

- Introduce the new *Wildlife Act* into the legislature in the winter of 2011.

Risk Management Strategies – Community Protection Plans

- Using the results from the NWT Community Wildland Fire Threat Rating analysis, the communities of Fort Simpson, Dettah, Fort Resolution, and Fort Good Hope will have Community Wildland Fire Protection Plans (CWFPP) developed in 2010-2011.

- ENR will work with communities, MACA, and other organizations to develop implementation strategies making use of the effort of the plans.

Waste Recovery Program

- Continue with Paper Products Diversion Initiative for 2010-2011 and 2011-2012.
- Assess the effectiveness of fees on single-use retail bags program and establish further legislation, as required, to eliminate their use in the NWT.
- Initiate consultation on, and design of, an electronic waste (e-waste) recycling program in 2010-2011.

Traditional Knowledge Implementation Plan

- Continue training and mentoring activities for ENR staff and participants from other Departments
- Identify, encourage and support cultural, language and TK mentoring opportunities for employees
- Ensure that traditional language and cultural skills among ENR staff are fully acknowledged, respected and utilized in collaborative initiatives
- Documentation, monitoring and sharing of ENR related TK initiatives using a variety of media
- Establish TK annual reporting schedules and formats for ENR
- Preparation of annual reports on ENR TK activities
- Assist other department with their TK plans/activities
- Continue establishing ENR TK Resource Library
- Establish criteria to assess implementation progress within the department

Protected Areas – Critical Wildlife Areas

- Implement new action plan with partners to complete establishment of existing candidate sites by 2014
- Identify candidate sites for GNWT sponsorship
- Complete important wildlife areas publication for the Mackenzie Valley

Planned Activities – 2011/12 and Future Years

Stewardship (Monitoring Caribou Herds)

- Implement five-year barren-ground caribou management strategy 2011-2015. Work with co-management boards to implement actions for caribou recovery. Complete management plans for all herds.
- For key species at risk, implement and complete wood bison management plans for the three populations, implement the NWT Action Plan for boreal woodland caribou, and participate in territorial, national and international activities related to managing polar bears. Establish a Wildlife Disease Specialist for South Slave and Dehcho regions.
- Prepare public education material for stewardship roles for industry, enhance patrols and begin development of hunter education program to enhance stewardship ethic.

Species at Risk Act

- Implement the new *Species at Risk Act*.

Wildlife Act

- Implement the new *Wildlife Act*. Update the *Wildlife Act* regulations.

Risk Management Strategies – Community Protection Plans

- An additional four communities Hay River, Fort Liard, Wrigley and Trout Lake will have Community Wildland Fire Protection Plans (CWFPP) developed in 2011-2012.
- An additional 14 communities will require plans. Averaging four plans per year, it is expected to take an additional 4 years to complete Community Wildland Fire Protection Plans (CWFPP) for all the NWT communities.

Waste Recovery Program

- Undertake a study to determine the viability of an e-waste recycling program in the NWT and to determine the appropriate type of program for the Territory. Finalize program design and draft regulations in 2011-2012. Implement an e-waste program based on consultation, feasibility and design studies in 2012-2013.

Traditional Knowledge Implementation Plan

- Identify resources to support community driven TK initiatives of mutual interest to ENR and community/regional governments or cultural agencies.
- Work towards establishing formal TK access, sharing and usage protocols with governments and cultural agencies.

- Engage in collaborative research and planning initiatives with regional management agencies, and/or cultural agencies.

- Provide ongoing liaison services and support to ENR personnel and other departments as needed.

Protected Areas – Critical Wildlife Areas

- Complete the establishment of proposed protected areas identified under the PAS strategy; and continue to establish protected areas as Critical Wildlife Area with interested communities under the NWT Protected Areas Strategy.

STRATEGIC INITIATIVE: MAXIMIZING OPPORTUNITIES

Action: Maximize Benefits from Resource Development & Related Initiatives

Description

MGP Strategic Investment- Permits and Regional Capacity

Work will be required from all GNWT departments to support development of the Mackenzie Gas Project (MGP) pending its approval. The GNWT supports development that proceeds at a pace and manner that respects the environment and ensures benefits accrue to NWT residents. This development has the potential to be the single most significant economic development opportunity in the history of the NWT.

ENR will ensure that technical expertise is available to effectively handle the workload associated with the MGP regulatory review and approval processes. The Oil and Gas Regulatory Officer will help to ensure a timely and thorough review of the pipeline applications; support mitigation and remediation activities; address public concerns over potential environmental impacts from pipeline and natural gas development; and, reduce the GNWT's post-devolution environmental liabilities.

If it proceeds, the MGP will cause the single largest act of land clearing in the history of the NWT with an expected area to total upwards of 14,000 hectares. The Environmental Impact Analyst position in the Forest Management Program will coordinate the many inter-related aspects of this activity with the developer and the many regulators and stakeholders.

Activity to Date

MGP Strategic Investment- Permits and Regional Capacity

- ENR has establish an Oil and Gas Regulatory Officer position to help facilitate a more thorough review of the pipeline applications, support mitigation and remediation activities, address public concerns over potential environmental impacts from pipeline and natural gas development and reduce the GNWT's post-devolution environmental liabilities.

- The Officer has become familiar with regulatory requirements, environmental issues, oil and gas exploration and development methods, construction methods, best environmental management practices, NWT community concerns and adaptive management approaches. In preparation for receiving MGP regulatory applications, the Officer has been providing technical advice on the potential for environmental impacts and mitigation of impacts from oil and gas exploration activity in the NWT.

Planned Activities – 2010/11

MGP Strategic Investment- Permits and Regional Capacity

- Review of pipeline regulatory applications may begin in 2010-2011.

Planned Activities – 2011/12 and Future Years

MGP Strategic Investment- Permits and Regional Capacity

- Review of pipeline regulatory applications will continue through pipeline construction. Effective management of environmental impacts will require an adaptive management approach where mitigation and remediation activities are regularly assessed for effectiveness and modified, where necessary.

STRATEGIC INITIATIVE: REDUCING THE COST OF LIVING

Action: Address Factors that Impact the Cost of Goods

Description

This strategic action focuses on efforts to reduce the consumption of costly energy sources through programs identified in the NWT Greenhouse Gas Strategy and the Energy Plan including EnerGuide for Houses, Energy Efficiency Incentive Program (EEIP), Energy Information and Awareness and the Arctic Energy Alliance (AEA). A coordinated approach to funding these programs was established through the Energy Conservation and Efficiency area of the GNWT Energy Priorities Investment Plan which was aimed at displacing the use of imported diesel and thereby reducing the cost of living in NWT communities and reducing GHG emissions.

Energy Efficiency Incentive Program Enhancement
Under the GNWT Energy Plan – Energy Efficiency Incentive Program initiative, the Energy Efficiency Incentive Program (EEIP) was expanded to ensure that sufficient rebates were available to meet requests from residents. The Energy Priorities Investment Plan extended this expanded program and added community weatherization workshops and other public education events in NWT communities.

Increased Presence of Arctic Energy Alliance
AEA is a not-for-profit organization established in 1997 to assist communities, governments, business and consumers to reduce the costs and environmental impacts of their energy and utility services. Under the GNWT Energy Plan AEA expanded home energy audits (Energy Guide for Houses), energy efficiency and awareness activities and technical support. The Energy Priorities Investment Plan provided resources to AEA to maintain these expanded programs, to develop an alternate energy mapping project and to create Energy Pathfinder positions in regional centers.

Energy Information and Awareness
ENR continues to have a direct role in ensuring that the public is aware of aware of the opportunities and approaches available to reduce energy consumption and greenhouse gas emissions.

Activity to Date

ENR will provide funding and technical support to projects that demonstrate use of alternative energy technologies (eg. solar hot water heating, photovoltaic panels, wood pellet heating) through the Energy Conservation Program, provide funding to NWT residents who purchase energy efficient products or complete renovations to reduce greenhouse gas emissions through the Energy Efficiency Incentives Program and will continue to develop GNWT and community knowledge and capacity to further reduce greenhouse gas emissions.

Energy Efficiency Incentive Program Enhancement

- The EEIP was expanded to ensure there was sufficient funding to provide rebates to residents of the NWT who purchase energy efficient equipment and grants to homeowners who complete energy efficiency upgrades to their homes. Funding was also provided for community winterization workshops.

Increased Presence of Arctic Energy Alliance

- Enhanced support was provided to the Arctic Energy Alliance to allow the Alliance to continue increasing activity in smaller communities and provide more equal access to NWT residents living outside of Yellowknife. An Energy Pathfinder position was established in Inuvik. The Pathfinder's role is to assist and support NWT residents, businesses, institutions and communities to implement projects that reduce their energy costs and energy related greenhouse gas emissions. The number of home evaluations was increased and travel to NWT communities for home evaluations was increased.

Energy Information and Awareness

- ENR conducted public information and education programs to ensure NWT residents are aware of the opportunities and approaches available to reduce energy consumption and greenhouse gas emissions. Efforts in public information and education, marketing campaigns and technical energy information on emerging technologies will be enhanced for communities and residents.

Planned Activities – 2010/11

ENR will lead several energy conservation and efficiency projects under the Energy Priorities Investment Plan.

Energy Efficiency Incentive Program Enhancement

- Funding will be provided to the EEIP to ensure there continues to be sufficient funding to provide rebates to residents of the NWT who purchase energy efficient equipment and grants to homeowners who complete energy efficiency upgrades to their homes. Community winterization workshops will be conducted in five communities to provide homeowners with information on how to fix their homes and prepare for the winter heating season.

Increased Presence of Arctic Energy Alliance (AEA)

- An energy pathfinder position will be created in Fort Simpson. Funding will be provided to allow home energy auditors to visit every community in the NWT.

Energy Information and Awareness

- Public information and education programs will build on the success of NWT residents, businesses and communities in increasing energy efficiency and conservation and reducing greenhouse gas emissions. Examples will be used to encourage action across the NWT.

Planned Activities – 2011/12 and Future Years

Energy Priorities Investments will continue in 2011-12 and future years and will include:

Energy Efficiency Incentive Program Enhancement

- Funding levels for EEIP will be maintained to ensure there is sufficient funding to provide rebates to residents of the NWT who purchase energy efficient equipment and grants to homeowners who complete energy efficiency upgrades to their homes. Community winterization workshops will be conducted in five communities in 2011-2012 to provide

homeowners with information on how to fix their homes and prepare for the winter heating season. If the workshops remain effective they will be continued into future years.

Increased Community Presence of Arctic Energy Alliance (AEA)

- An energy pathfinder position will be created in Hay River. Funding will be provided to allow home energy auditors to visit every community in the NWT in 2011-2012 and in future years.

Energy Information and Awareness

- ENR will recognize NWT residents, businesses and communities that have taken action to increase energy efficiency and conservation and reduce greenhouse gas emissions. These successes will be used to encourage increased action across the NWT.

STRATEGIC INITIATIVE: REFOCUSING GOVERNMENT

Action: Strengthen Service Delivery

Description

Science Agenda Implementation

The Science Agenda will help build strong partnerships with northern governments in an important area of common interest: research. It will contribute to efforts to ensure development is sustainable for our land and wildlife, protection of water supply and quality, advancing alternative energy initiatives and mitigation of, and adaptation to, climate change. The Science Agenda will contribute to increased northern participation in research activities and through this an increased interest in education and it will lead to increased employment and education opportunities associated with that activity. ENR hopes that an increased focus on science related activities will lead to an increased interest in science related programs, such as the Natural Resources Technology Program and the Environmental Monitor Training Program, both offered by Aurora College.

Activity to Date

Science Agenda Implementation

- ENR and Education, Culture and Employment (ECE) have coordinated the preparation of a Science Agenda for the GNWT under the Direction of the Deputy Ministers' Sub-Committee on Science Activities and with the support of a science working group comprised of Departmental representatives. This Agenda provides a strategic approach to science activities within the GNWT, identifies priorities for science activities needed to support GNWT programs and identifies actions needed to implement the Agenda.

Planned Activities – 2010/11

Science Agenda Implementation

- ENR will provide leadership in undertaking actions identified in the GNWT Science Agenda necessary to coordinate and increase the visibility of science in the GNWT, to increase access to information and data for decision-making, to implement a process to review and clarify research requirements of the GNWT, to promote and initiate collaboration with external governments and agencies, to increase the calibre of research done in the North and to develop northern science capacity.

- ENR will support and enhance science activities across the GNWT by working with Departments to seek and secure external resources, helping Departments to promote the role and relevance of science in the NWT, promoting the collection and use of Traditional Knowledge as a part of the science activities and reviewing and reporting on the progress toward addressing GNWT science priorities.

- ENR will ensure that GNWT science priorities remain relevant to northern residents by supporting engagement of GNWT interests in a broader NWT research strategy and establishing an ongoing process to secure input and participation from NWT Aboriginal governments in identifying and promoting science needs. ENR will work with other northern stakeholders, the research community and the Government of Canada to develop a clear vision and direction for research in northern Canada and a Northern Science Policy for Canada.

Planned Activities – 2011/12 and Future Years

Science Agenda Implementation

- ENR will continue to provide leadership in undertaking actions identified in the GNWT Science Agenda. A report on actions will be prepared annually and priorities and sub-priorities identified in the Science Agenda will be updated at least every five years.

- ENR will continue to assist Departments to seek and secure external resources for research, to promote the role and relevance of science in the NWT, to promote the collection and use of Traditional Knowledge and to report on the progress toward addressing GNWT science priorities.

- ENR will lead and participate in ongoing processes to secure input and participation from NWT Aboriginal organizations in identifying and promoting science needs. ENR will also work with other northern stakeholders, the research community and the Government of Canada to maintain a clear vision and direction for research in northern Canada and to implement a Northern Science Policy for Canada. The GNWT Science Agenda will be promoted territorially, nationally and internationally and links to national and international programs such as the Arctic Monitoring and Assessment Program, the Northern Contaminants Program, International Polar Year, Arctic Research Infrastructure Fund, International Arctic Science Committee and United Nations Educational, Scientific and Cultural Organization and national research funding councils will be established or enhanced.

d) Overview of Infrastructure Investments

Activity to Date

Four focus areas are being addressed by capital activities in 2009-2010; information technology projects; regional facility development supporting departmental operations; infrastructure to limit environmental liability; and, infrastructure to support the forest fire management program.

2009-2010 project activities and progress are:

Project	Category	Community	Status
Licensing Information System Phase II (LISIN)	Information	Territorial	On Schedule
Forest Management Information System (EMBER, FMIS)	Information	Territorial	Carried Over – On Schedule
Compliance Management Information System	Information	Territorial	On Schedule
Lightning Location System	Fire Management	Territorial	Reallocated
Check Station - Canol Road	Regional Facility	Norman Wells	Carried Over – On Schedule
Patrol Boat	Wildlife	Fort Good Hope	Reallocated
Shell Lake - Storage Building	Regional Facility	Inuvik	On Schedule
River Compound-Office/Warehouse	Regional Facility	Inuvik	On Schedule
Office/Warehouse - Upgrades	Regional Facility	Sachs Harbour	On Schedule
Schiltee Lookout Tower – Upgrades	Fire Management	Fort McPherson	Reallocated
Forest Fire Response Base	Fire Management	Trout Lake	Carried Over – On Schedule
Fort Liard lookout Tower – Replacement	Fire Management	Fort Liard	Carried Over – On Schedule
Drum Fuel Storage Containment	Environment	Fort Smith	Carried Over – On Schedule

In addition, ENR is completing an Infrastructure Management Plan – Scoping Study, providing the background necessary to conduct an assessment and develop a strategic plan for all infrastructure assets currently held by the Department. This plan will form the basis of the future capital planning process for the Department, address the categories of regional facilities, information technology, environmental liability mitigation and, support to the forest fire management program.

Planned Activities – 2010/11

Project	Category	Community	Status
Licensing Information System Phase III	Information	Territorial	Continuing Project
Compliance Management Information System	Information	Territorial	Continuing Project
Warehouse Upgrade	Regional Facility	Aklavik	New Project
Wildlife Lab/Garage – Interior Refit and Upgrades	Regional Facility	Fort Providence	New Project
ENR - Main Office Interior Refit and Upgrades	Regional Facility	Fort Simpson	New Project
Biologist Office – Upgrades	Regional Facility	Fort Smith	New Project
ENR Main Office – Upgrades and Program Changes	Regional Facility	Fort Smith	Continuing Project
Regional Biology Lab – Code Upgrades	Regional facility	Fort Smith	New Project
Swat lake – Environment Compliance Patrol Facility	Regional Facility	Hay River Area	New Project
ENR Regional Office Upgrades	Regional Facility	Norman Wells	New Project
Office Warehouse Upgrades	Regional Facility	Paulatuk	New Project
Regional Warehouse – Deferred Maintenance Upgrades	Regional Facility	Yellowknife	New Project
Trout Lake Forest Fire Management Base – Helicopter Landing Area	Regional facility	Trout Lake	New Project
Air Tanker Base Workshop – Upgrades	Fire Management	Fort Smith	New Project
Forest Fire Lookout Towers – Engineering and Design	Fire management	Territorial	New Project
Forest Fire Lookout Tower – Installation of a Remote Camera Detection System – 4-Mile Tower	Fire Management	Territorial (Fort Smith)	New Project
Fire Radio Communications Network	Fire Management	Territorial	New Project
Lightning Location System	Fire Management	Territorial	Continuing Project

In addition, ENR intends to develop a strategic plan for all infrastructure assets currently held by the Department, building on the work of the scoping study completed in 2009-2010.

- The plan will consider:
    - Regional Operations Complexes (administrative facilities, field operations facilities, remote service facilities, etc.);
    - Environmental Liability Risk Mitigation; and
    - Forest fire management infrastructure, including Forest Fire Lookout Towers and detection facilities, the Department's radio communications network supporting both fire management and regional field operations, and air tanker program support facilities.

Planned Activities – 2011/12

- ENR intends to complete development of the strategic plan for all infrastructure assets held by the Department. This plan will form the basis of the future capital planning process for the Department, address the categories of regional facilities, information technology, environmental liability mitigation and, support to the forest fire management program.

- LISIN Phase III will focus on improved access to residents and agents involved in the issuance of permits and licensing.

- Commence the implementation phase of the Compliance Management Information System.

e) Legislative Initiatives

Activity to Date

Species at Risk Act

- The NWT *Species at Risk Act* was introduced in the legislature in the fall of 2008 and was passed by the legislature in June 2009. The new Act will come into effect in early 2010. The Species at Risk Secretariat will be established in the fall of 2010.

Wildlife Act

- A new working group was set up with Aboriginal governments and wildlife co-management bodies to revise the *Wildlife Act*. Two meetings were held.

Forest Policy and Legislative Review

- The existing *Forest Protection Act* and *Forest Management Act* do not provide the tools necessary to manage forest resources consistent with federal commitments to sustainable forestry, the NWT Sustainable Development Policy and forest management principles in use today. None of the legislation adequately addresses consultation with Aboriginal governments.

- ENR has initiated the development of new comprehensive legislation that supports sustainable forest management and an approach to fire management consistent with the NWT Forest Fire Management Policy. The proposed legislation will cover the management of forest vegetation, regulatory requirements for the sustainable use of forest resources, and the protection of people, property, and values at risk from wildland fire in the NWT.

- During the winter of 2008, a framework and action plan was initiated for creating the new legislation and policy. This included the identification of consultation approaches.

- During fiscal year 2009-2010, background research and scoping of issues will be completed using a contract legislation specialist. The review of legislation and policy principles in comparative jurisdictions will provide a background of information for use in the discussions for the NWT.

Waste Reduction and Recovery Act

- The option of banning material under the existing Waste Reduction and Recovery Act is limited to a manufactured product or a package that will cause a significant impairment of the natural environment that cannot otherwise be prevented or mitigated. During the fiscal year 2009/10 a legislative proposal detailing options for amendments to the Act that expand GNWT authority to eliminate other manufactured products such as single use retail bags will be prepared.

Planned Activities – 2010/11

Wildlife Act

- Complete drafting of new *Wildlife Act* and introduce into the legislature in the winter of 2011.

Forest Policy and Legislative Review

- ENR will continue background research and accumulation of technical information in forest management and protection legislation in support of future working teams who will be tasked to proceed with the policy and legislation development. Completion of the Fire Management Program Review will provide policy and legislative concepts for consideration in legislative plan.

Waste Reduction and Recovery Act

- Legislative amendments to the Waste Reduction and Recovery Act will be drafted for public review.

Planned Activities – 2011/12

Wildlife Act

- Implement the *Wildlife Act* and undertake review of regulations.

Forest Policy and Legislative Review

- ENR will set up a working group to develop forest management policy concepts and discussion papers. A Steering Committee with participation from land claim organizations, wildlife co-management boards established under land claim agreements, and the Northwest Territory Métis Nation will be developed to guide the process of developing a sound forest management policy meeting collective objectives for sustainable management.

f) Human Resource Overview

Overall Human Resource Statistics

All Employees

	2009	%	2008	%	2007	%	2006	%
Total	257	100	252	100	253	100	241	100
Indigenous Employees	169	66	169	67	168	66	159	66
Aboriginal	128	50	132	52	133	52	125	52
Non-Aboriginal	41	16	37	15	35	14	34	14
Non-Indigenous Employees	88	34	83	33	85	34	82	34

Note: Information as of March 31 each year.

Senior Management Employees

	2009	%	2008	%	2007	%	2006	%
Total	13	100	12	100	12	100	12	100
Indigenous Employees	9	69	6	50	5	42	4	33
Aboriginal	4	31	3	25	3	25	3	25
Non-Aboriginal	5	38	3	25	2	17	1	8
Non-Indigenous Employees	4	31	6	50	7	58	8	67
Male	10	77	9	75	9	75	9	75
Female	3	23	3	25	3	25	3	25

Note: Information as of March 31 each year.

Non-Traditional Occupations

	2009	%	2008	%	2007	%	2006	%
Total	134	100	135	100	140	100	152	100
Female	22	16	18	13	20	14	23	15
Male	112	84	117	87	120	86	129	85

Note: Information as of March 31 each year.

Employees with Disabilities

	2009	%	2008	%	2007	%	2006	%
Total	257	100	252	100	253	100	241	100
Employees with disabilities	1	0.4	1	0.4	1	0.4	1	0.4
Other	256	99.6	251	99.6	252	99.6	240	99.6

Note: Information as of March 31 each year.

Position Reconciliation

This information differs from the employee information on the preceding page. Employee information reflects actual employees on March 31 of each year, and the information presented below reflects position expenditures approved through the budget process for each fiscal year.

Active Positions

Summary:

	2009-10 Main Estimates	**Change**	**2010-11 Business Plan**
Total	291	4	295
Indeterminate full-time	188	4	192
Indeterminate part-time	10	-	10
Seasonal	93	-	93

Adjustments During the Year:

Position	Community	Region	Added/ Deleted	Explanation
12813 – Coordinator Protected Areas	Yellowknife	HQ	deleted	Term Complete
11367 – Protected Area Biologist	Yellowknife	HQ	deleted	Term Complete
12740 – Environmental Assess Analyst	Yellowknife	HQ	deleted	Term Complete
12741 – Env. Assess & Monitoring Analyst	Yellowknife	HQ	deleted	Term Complete
12761 – Env. Assess & Reg Support	Yellowknife	HQ	deleted	Term Complete
12973 – Policy Analyst	Yellowknife	HQ	deleted	Term Complete
NEW – Environmental Impact Analyst	Hay River	SS	added	Strategic Initiative
NEW – Head, Land & Water Unit	Yellowknife	HQ	added	Strategic Initiative
NEW – Project Consultant	Yellowknife	HQ	added	Strategic Initiative
NEW – Science Consultant	Yellowknife	HQ	added	Strategic Initiative
NEW – Traditional Knowledge Coordinator	Hay River	SS	added	Strategic Initiative
NEW – PAS Biologist	Yellowknife	HQ	added	Strategic Initiative
NEW – PAS Coordinator	Yellowknife	HQ	added	Strategic Initiative
NEW – Spatial Data Manager	Yellowknife	HQ	added	Strategic Initiative
NEW – Sr. Science Advisor	Yellowknife	HQ	added	Strategic Initiative
NEW – Research Analyst	Yellowknife	HQ	added	Strategic Initiative
NEW- Assistant Deputy Minister	Yellowknife	HQ	added	Internal Re-allocation

Other Human Resource Information

One of the stated priorities of the Legislative Assembly is to "improve human resource management within the GNWT." To address this priority, a ten-year NWT Public Service Strategic Plan, *20/20: A Brilliant North* and accompanying three-year Action Plan were developed and tabled in the Legislative Assembly on June 4, 2009. The Strategic Plan outlines specific actions to address the goal to both promote Affirmative Action throughout the GNWT and to develop Human Resource Plans for each department.

The three-year Action Plan includes the development of a framework for departmental plans to be developed by August 31, 2010. It would be expected that departments could complete their HR Plans by the end of 2010-11 and these would be incorporated into subsequent business plans. The creation of these plans will ensure a consistent and coordinated approach across government, providing equitable opportunities for all staff.

The tables below indicate the statistics on the departments' human resource activities with respect to summer students, interns and transfer assignments for 2009.

Summer Students				
Total Students	Indigenous Employees Aboriginal + Non-Aboriginal	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
38	30	14	16	8

Interns				
Total Interns	Indigenous Employees (Aboriginal + Non-Aboriginal)	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
3	3	1	2	-

Transfer Assignments				
Total Transfer Assignments	Indigenous Employees (Aboriginal + Non-Aboriginal)	Indigenous Aboriginal	Indigenous Non-Aboriginal	Non-Indigenous
15	13	11	2	2

Activities Associated with Staff Training & Development

In July 2009, a Draft Training Strategy and Implementation Plan was developed for Environment and Natural Resources. The Strategy and Plan provides a framework ensuring that training is developed and delivered in a strategic, coordinated and systematic manner. The Strategy proposes to address department-wide training with an initial focus on training in four areas: certifications; appointment related competencies; and territorial and federal legislation and regulations.

Implementing the Strategy will be linked with the development of the departmental Succession Plan, the Human Resource Plan and ultimately the departmental Strategic Plan as detailed later in this document. As well, through the Business Planning process, the department will need to identify funding available for the implementation of the Training Strategy recognizing it may not be able to fund it solely from within. There will be a need for incremental funding to make the Training Strategy a success.

g) Information System & Management Overview

Overview

Through the establishment of the Shared Service Centre, the Departments of Environment and Natural Resources and Industry, Tourism and Investment share Information System development and management resources. The Informatics Division provides information management and information services to both departments under an interdepartmental agreement. This approach allows for increased synergies between departmental systems and a strong desire to share and collaborate on technology initiatives. To date, this approach has been very successful and has resulted in multidepartment systems platforms such as the Licensing Information System and the Environmental Assessment and Tracking System.

During the 2009-2010 fiscal year the Informatics division introduced a new Informatics planning process that aligns with GNWT business planning cycles. This new planning process includes a four-year strategic outlook and a one year operational plan. Once this planning cycle is fully implemented it will lead to much stronger and more focused plans resulting in much improved results focused on solving critical departmental challenges. The plan will be reviewed and updated annually to complete operational plans and allow an opportunity to reconsider and validate priority and strategic objectives on an ongoing basis

The table below lists the major application systems supporting ENR activities.

Application Name	Description
Forest Management Information System	Management Information System to assist the Forest Management division in decision support and operational management of our forests and related resources.
Environmental Assessment Tracking System (EATS)	New multidepartment system to support GNWT participation in environmental assessments and related activities.
Licensing Information System (LISIN)	System for Issuing and tracking licenses and permits such as hunting and fishing licenses and tags.
Compliance Database	Used to track and monitor progress on all occurrences, bear reports, officer patrols and other enforcement related of both Parks and Wildlife Officers.
Air Monitoring System	Tracks and reports on measured air quality from monitoring stations across the NWT and provide quantitative results for reporting purposes.
Spatial Data Warehouse	A data warehouse and web portal containing GNWT Spatial information for use by the GNWT and the public in support of their spatial or Geomatics activities.
Wildlife Management Information System	A web and GIS based system to store, analyze and distribute information and data related to wildlife studies.
Spills Database	System for tracking and reporting of hazardous waste spills in the NWT.

Planned Activities – 2010-11

In addition to organizational improvement activities building on the improved planning, results reporting and project management discipline introduced in the 2009-2010 fiscal year, the Informatics Division is undertaking the following systems development projects.

Land Use Framework Decision Support Tools

- As previously mentioned in section C, the implementation of the Land Use Framework under Managing this Land will require comprehensive geomatics, management and information support systems. These systems will provide access to more complete, timely and accurate information essential to ensuring quality decisions are made in a manner consistent with the Framework. While lead by the Informatics division of the Shared Service Centre, this project will require the input and participation of all the departments involved in the management of land within the GNWT.

Electronic Records Management

- ENR is one of the lead departments working on a GNWT wide initiative to implement an electronic records management system. The primary objective of the electronic records management system is to provide a system to allow the efficient storage and retrieval of information.

Licensing Information System Phase III

- Builds on the work completed during the 2008-2009 and 2009-2010 fiscal years by introducing new functionality to the application intended to reduce duplication of effort and human error. Primary activity centers on providing direct data entry access to vendors for issuing licenses.

Compliance Management Information System

- An integrated system replacing a number of existing and dated applications currently utilized for tracking incidents such as occurrences, nuisance bears, spills, investigations, patrols and related compliance activities, as well as the system for tracking wildlife and parks officer appointments and status including the current safety training status and equipment and firearms related issues. This new system will help to improve the efficiency in monitoring and reporting on these key compliance matters consistent with current legislation.

Planned Activities - 2011-12

During the 2009-2010 fiscal year, the department will be completing its four-year Informatics Plan which will establish a clear roadmap for technology investment through to the 2013-2014 fiscal year and will include the operational plan for the 2011-2012 fiscal year. The department has established clear criteria for assessing and prioritizing informatics and initiatives that relate back to departmental and government priorities. Systems and Information Management Activities will focus on:

- Improving levels of and access to services for the residents and businesses of the NWT through the appropriate use of technology. This includes improvements to approaches for collaboration and consultation though the application of technology as well as the enabling of key services over the internet (e-government).

- Increasing the cooperation and collaboration of internal and external stakeholders through the use of technology to help achieve synergies and improve the decision support systems around matters such as regulatory processes and procedures or issues related to the management of the land and other similar initiatives.

- Maximizing operational efficiency of government by the prudent investment in technology in support of process efficiency and automation.

- Increasing the efficient and effective management of information and data in support of improving the quality and timeliness of analysis and business intelligence to support and improve departmental decision support systems.

Informatics initiatives will need to help address the ongoing challenges facing the department including:

- The reduced availability of resources (human and financial)
- The aging workforce and knowledge transfer challenges associated
- Increasing pressure on efficiency and effectiveness
- Increased emphasis on "client centric" approaches to service delivery and program design

4. Future Strategic Direction for the Department

The environment is at the forefront of the NWT, Canadian and world conscience. At no other time in modern history have people been so aware of their environment and had such a high expectation of policy-makers to accommodate their concerns. Even in the face of a worldwide economic downturn, the environment has remained high on public policy agendas. Whether we are talking about climate change, water stewardship, land use, protected areas, wildlife and forest management, or environmental protection, the expectations of the public are large and growing. In the NWT, these issues are particularly important due to the cultural, spiritual, and economic ties that the region's people have to the environment.

Multiple levels of government manage the environment in the NWT. The Department of Environment and Natural Resources (ENR) is the lead department within the Government of the Northwest Territories (GNWT) responsible for the protection and promotion of the environment and our natural resources. ENR has an aggressive agenda over the coming years to ensure the protection of the NWT environment. Our activities will focus on climate change mitigation and adaptation, addressing barren-ground caribou declines, protecting territorial waters, establishing a modern policy and legislative framework for resource management, engaging in and preparing for devolution, and continuing to build on and improve ENR's relationship with Aboriginal and community governments.

Climate change is affecting many aspects of the NWT environment, and ENR will be under constant scrutiny to find new ways of mitigating and adapting to the effects of climate change. In fact, NWT residents are already seeing many environmental changes that are consistent with climate change predictions, including changes in sea ice, permafrost, and weather. By exploring, designing and implementing wind, biomass and alternative energy programs, ENR hopes to lead the GNWT's efforts to significantly reduce greenhouse gas emissions in the NWT. In addition, the development of an NWT Climate Change Adaptation Plan will establish mechanisms to provide information to and support decision-makers at all levels to incorporate climate change considerations into their activities.

Waste recovery and recycling reduces our use of raw materials, saves landfill space, reduces emissions of greenhouse gases and other pollutants, and provides local business opportunities. Consultations undertaken by ENR showed that NWT residents are eager to see government action in expanding waste reduction programs. ENR will continue to look at other waste recovery and reduction opportunities with the goal of ongoing reduction of waste products entering community landfills

Effective protection and recovery plans are required for species of plants and animals living in the NWT. Caribou, especially barren-ground caribou populations, are the most prominent among these, given their important role in the cultural, economic, and spiritual lives of many NWT residents. ENR is working with neighbouring jurisdictions and Aboriginal governments to develop common management plans and actions, including the Five-Year NWT Barren-Ground Caribou Management Strategy 2011-2015, which will ensure human activities do not impact the health or productivity of these wildlife species.

NWT residents value clean and plentiful water as a mainstay to their well-being. The quality and quantity of water resources and the health of aquatic ecosystems are of growing concern as development pressures increase within the NWT and elsewhere. To address these issues, ENR is

developing an NWT Water Stewardship Strategy, and is actively engaging in negotiations with transboundary water managers to ensure the protection of this valuable resource.

New legislation and policy is required to bring the management of forest resources into line with the government's objectives of sustainable management for the benefit of northern residents. Revisions to the wildland fire management legislation is required to reflect government policy on wildland fire management, the protection of forest resources from wildland fire and other natural disturbances. New forest management and fire management legislation is being developed, along with a forest resources policy. A new Wildlife Act will also be introduced to the Legislative Assembly in early 2011. These new and amended pieces of legislation will facilitate the sustainable and long-term management of the NWT's natural resources.

All of this will transpire as the GNWT continues to negotiate the devolution of lands and resources. ENR, as the GNWT's primary land and resource management regulatory authority, will be a key department in a post-devolution NWT. It will have added responsibilities related to land and resource management including land use planning, the promotion and implementation of the NWT Protected Areas Strategy, regulatory improvement, water management, and environment stewardship. Key over the coming years will be the development of detailed plans to ensure the implementation of a devolution agreement is as smooth as possible. Some of this work has already begun as ENR and the Department of Executive engage in the development of the Land Use Framework for the NWT. As well, a critical component of the planning process will be dealing with the human resource implications of numerous federal employees transferring to the GNWT. Succession Planning and staff retention and recruitment will continue to challenge departments like ENR with its aging and highly specialized workforce. The development of ENR's departmental human resources plan should help facilitate this transition.